ANNUAL REPORT

OF THE

ARCHÆOLOGICAL SURVEY OF INDIA

FOR THE YEAR

1934-35.

INTRODUCTION.

The attenuated appearance of this volume in strange contrast to its predecessors is perhaps the most eloquent commentary on the condition of the Department as it was left after the crippling blows received under the retrenchment axe. Thanks to the belated appearance of the last report which had to chronicle the activities of four years (including three of the post-retrenchment period), it did not suffer in comparison with the previous reports either in quantity or in the importance of the material. The present report covers the account of a single year, and reveals the unvarnished state of affairs, which can be attributed almost entirely to the effects of retrenchment. Owing to lack of funds for the main part and the depletion in the cadre of officers there has been a general decline in the activities of all branches of the Survey, which has now, perhaps, reached the rock bottom of its resources. Signs are not wanting, however, that the tide is definitely turning in favour of Archæology, and it is hoped that the set-back received in 1931 will not continue much longer.

The year under report has not been entirely uneventful in the field of archæology. The most important discovery was that of the existence of the Indus Valley culture so far southward as Kathiawar where Mr. M. S. Vats, Superintendent, Archæological Survey, Western Circle, has brought to light at Rangpur, a village in Limbdi State, antiquities distinctive of the Indus Valley civilization. It is likely that when more funds for exploration are available the Upper Gangetic Valley will also yield distinct traces of the extension of the civilization associated with the Indus Valley. In the Epigraphical field the most interesting discovery of the year was that of a stone inscription in early Brahmi

characters of the 1st or 2nd century B. C. found at Nagri near Chitore in the Udaipur State. In purport, it is identical with another inscription found at Ghosundi near Nagri some years ago, but the importance of the present find lies in its reference to the horse sacrifice, and the existence of worship of Vaishnavite deities at that early stage.

The main activity of the Department was in the field of conservation of ancient monuments but the meagre funds now available restricted any large special undertakings, unless they were of a very urgent nature. The special attention to the monuments in Bihar and its environs necessitated by the great earthquake of 15th January 1934 involved a serious shortage of funds in other provinces, for example, in Bombay where a large programme of work had to be cut short.

During this year the Government of India published in the Gazette draft rules under the amended Ancient Monuments Preservation Act, which lay down the conditions regulating the excavation of archæological sites by outside societies, both Indian and foreign. It is hoped that with the opening of the field to non-official effort great stimulus will be afforded to archæological research. During the year, negotiations have been in progress with Professor Norman Brown of the American School of Indic and Iranian Studies in connection with the grant of a licence to excavate a prehistoric site in the Indus Valley. It is hoped that other societies in India will follow the example of the American Society and organise properly conducted Expeditions under the guidance of experienced scholars. If the Universities and Historical Societies, working each in their respective local areas in which they are specially interested, organise such excavation parties, it should not be long before India reaches the standard of scholarship and achievement in regard to archæological matters approximating that in western countries. One thing seems to be certain, *viz.*, that the officers of the Archæological Department will not have the sole privilege of excavation and field research, but will co-operate with outside scholars and co-ordinate the efforts made by officials and non-officials to the great advancement of the cause of research.

J. F. BLAKISTON,

March 1936. *Director General of Archæology in India.*

As exception has been taken to some of the numerous Foot-notes introduced by the Editor into the Report of the Archæological Survey of India for the years 1930-34, it should be made clear that most of these notes were inserted entirely upon the responsibility of the Editor, who was allowed a greater measure of responsibility than is customary in the Editing of these reports.

J. F. B.

SECTION I.—CONSERVATION.

UNITED PROVINCES.

By Mr. M. Hamid Kuraishi.

Out of Rs. 1,32,601 spent in the United Provinces of Agra and Oudh a sum of Rs. 42,119 was expended on special repairs, Rs. 41,361 on annual repairs, Rs. 48,821 on the maintenance of archæological gardens and Rs. 300 as grants-in-aid for the maintenance of certain monuments. The earthquake of the 15th January 1934 was responsible for excess expenditure as compared with last year as it caused serious damage to the Mosque in the Taj gardens at Agra, the southern gateway of the Khusru Bagh at Allahabad, the Jami Masjid at Banda, the Gulab Bari at Fyzabad, the Fort and Akbari Bridge at Jaunpur, the Jami Masjid at Erachh in the Jhansi District, the Bibiapur House and the Dilkusha Palace at Lucknow and the Mosque at Isauli in the Sultanpur District.

In the Mosque attached to the TAJ MAHAL at AGRA the damage necessitated complete dismantling and resetting of the stone facing of the west façade from the plinth up to the inlaid frieze at the base of the parapet, the cost involved being Rs. 14,385. The work is still in progress

The southern gateway of KHUSRU BAGH at ALLAHABAD was badly shaken in the earthquake, resulting in serious damage to walls, roofs, *kanguras* and a balcony; these were repaired and strengthened with iron straps and rods. (Plate I, figs. *a* and *b*.)

Repairs to the JAMI MASJID at BANDA chiefly consisted of dismantling five of the modern supporting arches, fixing angle iron arches beneath the ancient ones and further supporting them by constructing fresh masonry arches underneath.

At the GULAB BARI in FYZABAD the roofs of the *dalans* on the east and west of the inner gateway were badly shattered and ominous cracks had appeared in the walls and arches. Dismantling the roof and masonry was executed during the year and new *sal* beams were purchased to replace those that were found to be unserviceable.

In the FORT at JAUNPUR the earthquake caused serious damage to the gateways, the mosque, the so-called *Hawalat* and a pavilion standing on the north fortification, the last named being very badly shaken. A sum of Rs. 6,892 was allotted for the more urgent structural repairs. The voussoirs of the east and west arches of the first or outer gateway were renewed and the loose stone facing of the west arch was reset in cement mortar; the *kanguras* over the gates and flanking bastions were restored; and open joints in the masonry and cracks in the arches and roofs were treated with cement grouting under pressure. The arches of the prayer chamber of the Mosque inside the Fort were badly cracked and were therefore supported on angle iron arches. The stone turrets in the east façade of the Mosque were shattered and thrown

out of plumb and had to be replaced by new ones; and the roof of the so-called *Hawalat* was made watertight with a 4" layer of lime concrete. The roof and pillars of the pavilion on the north fortification were taken down and will be re-erected at a future date. The southern rooms of the building known as the 'Suboverseer's Quarters' were shattered beyond repair and had to be entirely rebuilt.

Owing to the damage caused by the earthquake to the AKBARI BRIDGE at JAUNPUR an estimate amounting to Rs. 68,100 was framed by the Executive Engineer, Dehra Dun Central Division. Repairs to the extent of Rs. 11,600 were executed during the year and consisted primarily of dismantling and rebuilding the damaged portions of several arches, reconstructing cracked roofs and floors of kiosks, replacing their pinnacles, pillars and screens and rebuilding kiosk No. 8. Temporary brick pillars were constructed to support the cracked arches of the Library situated to the north of the Stone Lion. In order to divert the traffic on the Lucknow-Benares road the Government of the United Provinces erected a temporary boat bridge at their own cost. The work is in progress.

The MOSQUE at ERACHH in the JHANSI DISTRICT had been badly shaken in the earthquake, several of its arches and domes having cracked. Stone arches resting on masonry pillars were constructed under the two end arches in the façade of the north and south wings. In the *liwan* or prayer hall also similar stone arches were provided under the north and east arches supporting the end dome on the south.

The walls of the rooms on the north and south of the east wing of the BIBIAPUR HOUSE at LUCKNOW, which had cracked, were fastened to the adjacent walls with iron tie rods secured to straps and, where necessary, damaged brick masonry was dismantled and rebuilt; the cracked pillars in the east and west verandahs were properly tied with iron straps firmly secured with iron bolts and nuts and their damaged capitals were made good with lime masonry finished with cement plaster.

In the DILKUSHA PALACE at LUCKNOW the iron tie rods of the north-west corner room of the smaller palace which had been displaced by the earthquake shock were repaired and reset in their original position and two new tie rods were fixed to hold the east and west walls together.

The small MOSQUE at ISAULI, DISTRICT SULTANPUR, had to be almost completely taken down and rebuilt and the fallen minarets were also reconstructed.

Amongst other works unconcerned with the earthquake may be mentioned the following:—

The covered drains in the courtyard of the DARGAH of HAZRAT SHAIKH SALIM CHISHTI in the AGRA DISTRICT were choked up with silt and with the resulting percolation the whole of the south wing of the mosque had inclined outwards slightly and the roofs of several cells of the verandah in front of them had badly cracked. To ensure the stability of the structure it may be necessary to bind the walls of cells and verandahs with iron tie rods as has already been done on the east side. To avoid further immediate damage to the monument, however, the drains were opened, cleared of silt and again covered over.

To facilitate their clearance in future manholes were provided at the corners and junctions of drains. This was a contribution work paid for by the Dargah Committee through the Collector of Agra, and cost Rs. 4,801. The underground drainage of the courts and roofs of the Dargah group of buildings was very skilfully carried out by the original builders. Two important features of the scheme were (*a*) the provision of a number of drains in order to obviate slopes in the paved flooring of the court, and (*b*) the distribution of rain water from the roofs and from the courts into two separate repositories—the *Birka* in the court holding water from the roofs, which was and is still used for drinking purposes, and the *Baoli* or *Jharna* outside receiving all water from the courts—for washing, etc.

Repairs to the GUPTA PILLAR at BHITARI in the GHAZIPUR DISTRICT consisted of providing a wired-cast-glass pane over the inscription, tightening the cracked portion of the pillar with gun metal clamps, opening a drain to carry off rain water from the compound and filling open joints in the brick floor with cement mortar.

The works at the CEMETERY in the RESIDENCY at LUCKNOW comprised the repairing of the damaged graves, repainting the iron railings, gates and inscriptions; and replacing missing stone slabs, tablets, crosses, pinnacles and broken glass panes, etc. A plan of the cemetery complete with an index to the graves therein was fixed at the entrance gate. The main roads in the Residency had been in a very bad condition for some time and since those on the sloping ground were particularly rough, being cut up and channeled by rain water, it was decided to relay the roads on level ground with *kankar* and to remetal the roads on slopes with stone ballast and asphalt. This work was half completed during the year.

Amongst the many buildings at which annual repairs were executed during the year the following deserve notice.

The decayed stone bases, columns, brackets and face stones in the *dalans* flanking the Delhi Gate of the AGRA FORT were replaced by new ones; the wire netting over the large Shahjahani well in the Diwan-i-Am courtyard was renewed; the broken terraced flooring in the Khas Mahal was relaid with a fresh layer of lime concrete, and the decayed stone pillars of the cells underneath were replaced by new ones. An iron rail was inserted along the parapet to support the new marble beam in the ceiling of the west verandah of the Musammam Burj and the roof concrete was then relaid according to the original design.

Holes in the compound wall of the IDGAH, AGRA, were underpinned with *lakhauri* bricks in lime and cracks in the roof of the prayer chamber were filled with cement mortar. Some of the broken *kanguras* were repaired and the damaged floor of the main entrance on the east reconstructed.

Doors of suitable Mughal design were provided at the entrances of all the four minarets of the TAJ MAHAL. One of the modern bronze lamps of antique design in the forecourt had fallen and broken; it was repaired and refixed in position.

At FATEHPUR SIKRI the facing of a portion of the city wall flanking the Agra Gate that had fallen during the rains was rebuilt with rubble stone in lime. Patches of concrete over the roofs of the Agra Gate, the Lal Darwaza and the Delhi Gate had become disintegrated and were, therefore, removed and replaced by new ones. At the Nagina Masjid the height of the enclosure wall on the south was slightly raised and the arched openings on the east were provided with low walls to prevent dogs and cattle entering and a *shisham* wood door of Mughal design was provided at the main entrance. The retaining wall along the approach roads to the palaces was repaired at a few places and *pucca* drains were constructed along the metalled road from the Naqqar Khana, some 250 feet eastwards.

At the mausoleum of the Emperor Akbar at SIKANDRA wooden railings, painted white, have been fixed round the heads of the openings of the marble steps on the topmost storey. The inlaid panels and corner turret of the eastern jamb of the central archway of the northern façade, which had bulged out, were dismantled and reset in their original positions and the dislodged brackets and pillars of the *chhatris* of the north-west and south-west minars over the entrance gateway, which had been affected by the earthquake shock of the 15th January 1934, were pushed back to their original positions and made firm with copper wedges.

In the first entrance gateway of the JAGNER FORT in the AGRA DISTRICT a heavy stone lintel that had cracked and fallen was replaced by a new one.

At the monuments in the KHUSRU BAGH at ALLAHABAD cracks in the walls and roofs of the gateway and tombs were filled with cement mortar and five teakwood doors were fixed in the first floor compartment of the tomb of Khusru's mother.

The group of temples situated on the left bank of the Gomti at BAIJNATH in the ALMORA DISTRICT are very similar in architectural style to those at Dwarahat. Each temple consists of a square shrine covered as usual with a false Hindu roof and a hollow *sikhara* crowned with a fine *amalaka.* The main temple is a roofless building facing the river with a flight of steps or bathing *ghat* in front. The repairs executed at those temples consisted chiefly of filling open joints in the stone masonry with cement mortar or cement concrete and dismantling and resetting the stones dislodged by trees growing over the monuments. In the course of removing some trees from the solid spire of a small temple to the north-east of the main shrine the sub-overseer in charge discovered in the earth and rubble core, amongst other things, a sword, a spouted bronze *lota*, a bronze cup, a stone bead, a dagger in seven pieces and several earthen pots. The leaking roofs of the shrines at CHAMPAWAT in the same District locally known as the Champavati Devi, Kalika Devi and Ratneswar, were made watertight by filling in open joints with cement concrete.

At the BUDDHIST RUINS at SARNATH near Benares concrete floors were repaired at several places to permit of the easy flow of rain water and the cracks in the roof of the shed over the Asoka column were made watertight with cement mortar.

The group of temples at ADBADRI in the GARHWAL DISTRICT consists of 14 shrines situated immediately above the pilgrim route from Ranikhet to Badrinath. In style they closely resemble those at Baijnath and Dwarahat mentioned above. Besides filling up open joints in all the temples with cement mortar or concrete, a few top courses of the Kidarnath temple were dismantled and reset.

GARDENS.

Twelve gardens are maintained from the Archæological Department's funds in the United Provinces, 8 at Agra, 3 at Lucknow and 1 at Allahabad. As usual they were kept in a high state of efficiency and the expenditure upon them during the year amounted to Rs. 48,185, and the income derived from them Rs. 6,474.

The hot weather was not severe, but the spell of frost in January did some damage to the gardens. The summer rains were poor, but the winter showers were well distributed.

The MACHCHI BHAWAN lawns in the AGRA FORT were dug up and re-grassed. A type of wild grass which seems to prosper only under shade was sown to cover bare patches under trees and *doob* grass was put down on the remainder. New beds for annuals were made in the Anguri Bagh and in front of the Diwan-i-Am but due to brackish water they did not prove a success and they are now to be re-grassed over.

At ITIMAD-UD-DAULA'S TOMB a single line of yellow roses was planted on each side of the central causeway and four Bougainvilleas were taken out from each of the groups in the lawns as the plants in these groups were too close to each other.

In the gardens attached to the CHINI-KA-RAUZA and the old ROMAN CATHOLIC CEMETERY a good deal of judicious lopping of trees and pruning of the shrubberies was done and the appearance of the latter garden was much improved by planting clerodendron near the wall, abolishing the old nursery and providing new flower beds.

The RAM BAGH being chiefly a fruit garden is intended to be a model orchard on commercial lines. Besides the usual routine work of top-dressing the lawns, pruning shrubs and fruit trees, etc., peach trees were sprayed with tobacco-and soft-soap solution for the leaf curl insects, and water channels were altered to more up-to-date lines by using the ring furrow system. Jasmine beds in the two old orange plots were realigned on a diagonal irrigation system and the old jasmine beds were replaced by fresh ones as they interfered with the growth of the young mango and malta plants recently put in. Guava trees in one plot were replaced by grape fruit and *kund* by custard apples in another plot. Young trees were provided with a protective covering for the hot and cold seasons and cactus hedges were planted around young mango trees to prevent monkeys from damaging them.

At the TAJ GARDENS annuals were provided for all the three seasons. Of the eight new beds of annuals and roses, four are to be closed down and

re-grassed under orders from the Director General of Archæology. Four lawns were dug up and re-grassed and the other lawns were top-dressed, manured, watered and kept mown. Shade grass was sown to fill up bare patches under trees.

Outside the walls of the KHAN-I-ALAM NURSERY a rough *tila* was reclaimed and planted with annuals. In the Nursery rose stock was transplanted into a new area and chrysanthemums made a very good show. In view of the increasing demand for fruit trees an effort was made to propagate them and many *khatta* seedlings were raised for budding on, and transplanted.

At SIKANDRA AND FORECOURT fifteen large *nim* trees were removed from the forecourt to enable younger permanent trees to develop. The shrubberies were pruned and dug over and the lawns were generously treated with manure and well maintained. A portion of the lawn near the Dak Bungalow was trenched and re-grassed. The irrigation system having improved, the fruit area recently planted appears to be proving a promising young orchard.

At the KHUSRU BAGH in ALLAHABAD the four squares of lawns on either side of the central tomb were re-grassed and generously treated with artificial manures. One large tamarind tree on the south of the right hand tomb was removed, as it was dying and looked unsightly.

The three Archæological gardens at LUCKNOW, *viz.*, the Dilkusha, the Nadan Mahal and the Residency grounds, were maintained in a very good condition throughout the year. At the Residency several alterations in the cemetery gardens were executed in compliance with the instructions issued by the Director General of Archæology in India on his last visit to Lucknow.

DELHI PROVINCE.

By Mr. Mohd. Hamid Kuraishi.

The total expenditure incurred on the conservation and maintenance of the ancient monuments and their gardens in the Delhi Province amounted to Rs. 48,466, of which only Rs. 1,021 were spent on special repairs, Rs. 17,556 on annual repairs and Rs. 49,889 on the maintenance of Archæological gardens.

At the BEGAMPURI MOSQUE all the open joints in the masonry were lime pointed and the roof of the northern *dalans* was made watertight by filling in cracks and crevices with fine lime concrete. A few holes in the jambs of arches were underpinned and a masonry pillar was constructed to support the broken dome immediately to the north of the central dome of the prayer hall.

The inscriptions on the MUTINY MEMORIAL ON THE RIDGE were repaired by refilling many of the letters with lead.

During the annual repairs the monuments were cleared of jungle, and some sixty bee-hives were also removed.

A pipe line of 4" diameter was laid from the tank in front of the RANG MAHAL in the DELHI FORT to an underground drain passing through the Archæological Area for draining off rain water that collected in the tank and served as a breeding place for mosquitoes. In the Delhi Fort besides ordinary repairs the

most important item of work was that of making watertight a length of some 500 yards of the back (river front) wall of the fort by pointing with coloured cement the open joints in the red sandstone facing.

The broken steps at the entrance to HUMAYUN'S TOMB were repaired and open joints in the masonry of the seats on either side of the gateway were filled with lime concrete. The dislodged stones in the tanks and channels were dismantled and reset and all the holes in the compound wall were underpinned. A missing marble slab at the foot of a grave in a side chamber was replaced by a new one and necessary repairs to the marble veneer splintered by iron dowels were executed.

Besides carrying out usual repairs to the JAMI MASJID and ZANANA MAHAL, a modern tank in the courtyard of the WAZIR'S HOUSE in the KOTLA FIROZ SHAH was dismantled and removed.

In the south-east corner of the *dalans* of Alau-d-Din's extension of the Quwwat-ul-Islam Mosque at the QUTB three cracked lintels were replaced by new ones. Absorbent patches in the roof of Altamish's colonnade of the Mosque were relaid with lime concrete; new glass tell-tales were put across the fissures in the Minar; broken stone posts in the chain fencing were replaced by new ones and loose wires were drawn taut.

At SHAIKH ABDU-N-NABI'S MOSQUE several open joints in the masonry were treated with recessed pointing and the cracks grouted with cement mortar. The height of the broken compound wall on the south was slightly raised and a new iron gate was provided to prevent cattle from entering the mosque.

A few dislodged *kanguras* at GHAYASUDDIN TUGHLAQ'S TOMB were dismantled and reset.

Repairs to the Hammam and Qasr-i-Hazar-Sutun at BIJAI MANDAL were taken up departmentally. All the cracks were filled with fine lime concrete, the arch was made watertight with liquid cement grouting, and patch repairs to the floor of the dressing room were executed. The south wall of the Qasr-i-Hazar-Sutun was repaired in patches, and a dry masonry drain was constructed behind this wall to drain away rain water coming from the open court of the upper storey of the Palace.

GARDENS.

The Archæological gardens at Delhi were efficiently maintained during the year. In January last a spell of severe frosts was experienced which not only handicapped plant growth in general but also killed tender shrubs situated in exposed positions.

The DELHI FORT gardens fared well throughout the year; and blue, mauve and white flowering annuals were used for the cold season display as usual. The lawns were top-dressed with manure and the groups of pointsettias and bougainvilleas were much appreciated.

At HUMAYUN'S TOMB the monsoon erosion having raised the levels of grassed surfaces here and there, a good deal of relevelling had to be done in order to improve the appearance and make regular irrigation easy.

There was no scarcity of water this year at the PURANA QILA for the period of the winter rains was longer than that in the previous years and thus contributed much towards keeping the lawns green. The grass surfaces in the Purana Qila are faulty and require the same treatment of extensive relevelling as has been done at the Humayun's Tomb lately.

At the HAUZ KHAS, KOTLA FIROZ SHAH and the QUTB gardens there is little calling for remarks. These gardens consist merely of lawns and shrubs, with no floral features, and were in excellent condition throughout the year owing chiefly (in the case of the Qutb) to the increased supply of water following upon the installation of a steam-driven pump some time ago.

At SAFDAR JANG'S TOMB owing to overgrowth the oleander shrubs were removed from the vistas and in their place free flowering crimson bush rose was planted in the beds which were hedged round with dwarf acacia. In this way more colour will be introduced to the gardens during the winter months without congesting the grass plots with tall vegetation as before, for the maximum height of these hedges is only about 4 feet. Relevelling of grass surfaces necessitated by the accumulation of earth brought down by rain water was done in many places and the condition of the lawns was quite satisfactory throughout the year.

PUNJAB.

By Dr. M. Nazim.

During the year under report the execution of conservation works in the Punjab was carried out departmentally, with the exception of the maintenance and working of the pumping plants at the Archæological Gardens which were as usual looked after by the Public Works Department.

The total expenditure on the monuments in the Punjab was Rs. 73,046 of which Rs. 36,225 were spent on the execution of annual repairs and maintenance, Rs. 15,239 on the upkeep of the pumping plants at the Archæological Gardens in the Lahore Fort and at Hazuri Bagh, Shalamar and Shahdara, Rs. 6,015 for providing an electrically driven plant and installing a 7·5 B. H. P. 3 phase A. C. motor at Jahangir's Tomb, Shahdara, leaving a balance of Rs. 15,567 for works of special repairs. Included in the annual repairs' expenditure is the sum of Rs. 6,616 paid on account of salaries to the staff employed at various monuments.

Out of the four works of a special nature executed during the year, two, *viz.*, repairs to MASTI GATE in the LAHORE FORT and repairs to the NAWANKOT MONUMENTS near Lahore, both of which were in progress from the previous years, have been completed. At the Masti Gate besides erecting an iron pale fencing outside the gateway, in order to prevent people from defacing the old walls and platforms and making the area at the gateway filthy, the restoration of the masonry of the northern and eastern façades and of the parapet wall was also undertaken. The roof of the upper storey of this gate and the flat arches of several interior door and window openings had badly cracked. The flat arches

were supported on iron rail frames while the cracks in the roof were grouted and provided with iron clamps embedded in cement concrete. The roof and floors of this monument were also laid with a new layer of concrete.

At the NAWANKOT monuments the repairs executed comprised the restoration of the parapet *kanguras,* the missing red sandstone *dasas* (plinth stones) and the pavements; the underpinning of brickwork of walls; repairs to the façades in fine brickwork and to the staircases; providing cement concrete covered with a layer of 2" mud plaster on the top of the roof; and fixing an iron pale fencing round the gateway as well as the two bastions.

The remaining two special repairs works were (1) making pathways on the south of Diwan-i-Am courtyard of the LAHORE FORT and (2) repairs to the HAZURI BAGH, LAHORE. The pathways were provided in order to facilitate wheeled traffic up to the eastern end of the Fort.

The ROSHANAI GATE and its adjoining buildings to the north and south of the Hazuri Bagh, which were protected as Provincial monuments under the Ancient Monuments Preservation Act in 1928-29 were transferred to the Central Government in the year under review. The modern upper storey verandah of the southern wing of the monument has been demolished in order to expose the ancient structure (Plate I, figs. *c* and *d*).

During the year an electrically driven pumping plant was substituted for the existing steam driven engine at JAHANGIR'S TOMB, SHAHDARA, at a cost of Rs. 3,560.

Out of the annual repairs grant for the LAHORE FORT, the old decayed waterproof felt sheeting on the roof of the main hall of the Shish Mahal was replaced and some cracks in the roofs of the *dalans* and parapet walls of the adjoining buildings were filled in with cement mortar. In the court adjoining the Shish Mahal on the south-east, fine brickwork was repaired and red sandstone *dasa* stones were provided in the plinth wherever necessary. Among other works executed were repairs to the steps at the Hathi Pol gateway, the usual repairs to the Museum building, the tarring of the approach road in the Fort and the construction of a drain near the tube-well, along the north wall of the Fort. In addition to the above, large dislodged patches of brickwork on the east and the south sides of the Fort main wall, caused by the percolation of water, were repaired.

A sum of Rs. 3,676 was realised during the year on account of the entrance fee to the Lahore Fort as against Rs. 2,957 received during 1933-34.

About half of the pathways in the HAZURI BAGH which were made of brick ballast and *surkhi* and were in almost perpetual need of repair have been paved with brick-on-edge paving in lime mortar on a foundation of concrete.

At the NAWANKOT MONUMENTS the broken red stone *jalis* at the east and west side openings on the upper storey of the gateway were replaced.

Since the introduction of conservation departmentally in this Circle much has been done to improve the condition of the monuments at Shahdara. During the year the works executed at JAHANGIR'S TOMB consisted of repairs to

the broken steps of the tank and the Tomb proper; repairs to the broken edges of the eastern and northern causeways of the north-east lawn; the replacement of missing terracotta *jalis* in the recess of the northern pavilion by new ones and the plastering of the side walls of the recess; refixing the loose red sandstone frames of the *jalis* on the first floor of the main entrance on the western side and fixing new terracotta *jalis* similar to those already existing.

In the AKBARI SARAI, the decayed and bulged out walls of five more rooms between the south-west corner and the mosque, were restored with country bricks. The open joints in the old masonry were pointed, holes were filled in and broken arches of the rooms were properly repaired.

A red sandstone *jali* ventilator at NUR JAHAN'S TOMB was renewed and decayed plaster on the walls in the southern and western verandahs restored. Some rusted iron posts of the fencing enclosing the area of the tomb were replaced by new ones and loose ones were refixed. The condition of KAMRAN'S BARADARI was considerably improved during the year. A thick cement concrete floor was laid in the south-west and north-west octagonal rooms on the ground floor and in the passage between these two rooms, and the decayed square tiles of the verandah floor were replaced by better ones obtained from the dismantled floor of the passage mentioned above. The roof and the steps were repaired and the arched roofs and the walls of the central room and verandah were plastered.

A sum of Rs. 3,224 was spent at the HIRAN MINAR and TANK at SHEIKHUPURA on the restoration of the broken lime concrete floors. The ground floor verandah around the central room of the Baradari in the centre of the Tank was provided with thick red sandstone pavement stones laid on *kankar* lime concrete. Sandstone slabs were also laid on the treads of the steps of the staircases. Another estimate for laying sandstone flooring on the topmost roof of the Baradari was prepared but with the funds available only the concrete work was done and the stone collected. The latter will be laid next year.

At the SHALAMAR GARDENS, besides the usual maintenance and execution of minor repairs, 42 new red sandstone fountain heads were fixed in the eastern and western channels in the third terrace where the decayed pipes were also replaced by new ones of copper. In the same terrace 114 brass jets for the fountains in the channels were also provided. Silt was removed from the big tank on the second terrace and from the sluice under the southern main entrance of the garden. The marble *takht* in the second terrace was provided with a new white marble stone head or *mutakka*.

A further sum of Rs. 1,873 was expended this year on the MUGHAL BRIDGE over the BUDDHIANWALA NALA in the Gurgaon District. The eastern retaining wall on the down stream side, where the work was in progress, was reconstructed and the gap at the back of the wall was filled up with well rammed earth, and a pavement was constructed on it. A *kaccha* drain from the north-east retaining wall was made in order to drain off rain water and the face of the northernmost arch on the down stream side was repaired (Pl. II, figs. *a* and *b*).

The repair works at the other monuments in this Circle being of a very ordinary nature do not call for any special notice, except those at Sheikh Chilli's Tomb at Thanesar, the Kabuli Bagh Mosque at Panipat, the Sawi Masjid at Multan and the Rohtas Fort in the Jhelum District. The loose stones in the dome of SHEIKH CHILLI'S TOMB were taken out, reset in cement and the dome made watertight to prevent growth of vegetation. The floor of the northern chamber of the KABULI BAGH MASJID was paved with bricks in a similar manner to the existing modern work in the central prayer chamber. At the SAWI MASJID the retaining walls on the south side and its north-east corner were reconstructed with small new bricks, the *tawizes* of the graves were reset and the courtyard and the area around the Mosque was filled in with earth. At the ROHTAS FORT the hollow in the northern outer wall of the Khawass Khani Gate and the inner upper portion of the Kashmiri Gate were repaired with coarsed rubble masonry, and cracks on the outer side of the dome of Man Singh's Haveli were grouted.

A resumé of the report of the Superintendent, Archæological Gardens is given below:—

At the Shalamar Gardens work during the year was confined to maintenance. The annuals planted around the central tank suffered somewhat from the abnormal winter rains with the result that the display of flowers during spring was not up to the usual standard. The roses in the central terrace on the whole gave a good display of bloom during March-April, but many of the beds now need replanting with new roses. The garden was generally well maintained throughout the year. The Charagan Fair was held during the last week of March and Pardah Day was as usual observed on the first Monday of each month. The grassed portions in between the paths on both the north and south sides of Jehangir's Tomb were trenched and regrassed. The new beds of flowering shrubs have not progressed very satisfactorily so far, but with the increased water supply it is hoped they will improve during the next year.

NORTH-WEST FRONTIER PROVINCE.

By Dr. M. Nazim.

No special work was executed during the year at any of the monuments in the North-West Frontier Province, and only the small sum of Rs. 2,151 was spent on annual repairs. The chief work done was that at TAKHT-I-BAHI and consisted of repairing the approach hill roads on the north and south sides of the monuments, which comprise a total superficial area of 34,474 s.ft. This improvement has led to a considerable increase in the number of visitors to the monuments at Takht-i-Bahi.

Another work for which funds had to be found was at the BUNGALOW at NIKRA near Taxila and deserves mention. In the year 1930 it was noticed that the stream flowing along the north side of the garden of the Bungalow was encroaching on the bank as well as on the abutment of an aqueduct. The bed of the nullah was raised on the garden side and lowered on the opposite

side, but this measure proved of little use for the stream again scoured away a portion of the garden bank. It was, therefore, decided to construct in dry pitching a protection wall along the length of the garden bank and the work was commenced in the spring of 1934. With further funds in the new financial year the work was continued and a portion of the bank 140 feet in length was covered with stone pitching secured with stout wire netting. A small spur was also placed on the upstream side in an endeavour to divert the flow away from the pitching. The two floods in the following rainy season proved however that the measures taken were still inadequate and further steps were taken, therefore, after the monsoon. Two more massive spurs were added to the already finished pitching and the previous spur was strengthened. Wire nets filled with stone were also placed as protections to the abutment and the pillar supporting the aqueduct. It is hoped that any further scouring of the garden bank by the nullah has now been stopped. The total expenditure on this work has amounted to Rs. 1,735, of which a sum of Rs. 1,376 was spent in the year under review. A reservoir measuring 12′×6′×6′ was constructed in the compound of the Bungalow to meet a long-felt want for water for the garden during the summer months. In addition, the old wooden fencing posts, many of posts had to be renewed almost every year, were replaced by reinforced concrete which embedded in cement concrete.

BOMBAY PRESIDENCY WITH SIND.

By Mr. M. S. Vats.

As in previous years the great majority of the conservation works in the Western Circle were executed by the Public Works Department of the Bombay Government, but this time at a much heavier cost than this Department has ever had to bear before. Up to the end of the last year the local Government was content to levy a consolidated agency fee of 27 per cent. for all archæological works entrusted to it for execution. From the beginning of 1934-35, however, in addition to the agency fee, which now varies from 8 per cent. to 27 per cent., the local Government found it necessary to debit the Archæological Department also with the pay, travelling allowances, leave salaries and pensionary contributions of the establishment which it detailed for duty on works, but which heretofore it used to provide free of cost. These new charges coupled with the agency fee referred to above raised the total bill of the Public Works Department to the high figure of Rs. 16,505 which amount being paid out of the allotment of Rs. 48,403 sanctioned for conservation works in this Circle, left a sum of only Rs. 31,898 to meet the cost of actual works on as many as 749 monuments. The impossibility of such a task, *vis à vis* the means provided for accomplishing it, is too patent to need comment, though even with the small amount available to him for actual works in the Western Circle, the Superintendent managed to finance 273 works of ordinary current repairs and 9 works of special repairs. A sum of Rs. 517 provided under head "Exploration" was also utilised in repairing the monastery at the Stupa Site at Mohenjodaro.

It will not be irrelevant to mention in this connection that of the remaining 456 monuments, which could not be touched during the year, many an important monument calls for urgent attention. Already 68 estimates of special repair works amounting in all to Rs. 2,12,331 are awaiting to be funded in this Circle. The longer these estimates remain unfunded the greater indeed grows the risk of serious decay and damage to the stability of the monuments to which they relate.

Of the ten works of special repairs including that of the Stupa Site at Mohenjodaro which were continued or initiated, two were carried out departmentally under the supervision of the Superintendent. These relate to (1) the 7th Century Brahmanic CAVE TEMPLE at BHAMBURDA in the suburbs of Poona City, and (2) the MONASTERY of the KUSHAN STUPA at MOHENJODARO in the Larkana District of Sind. At the former temple it was a case of continuing further the special repairs started in a previous year and comprised the deepening of the ancient rock cut channel, which had ceased to function owing to the lowering of the level of the open court through centuries of wear and tear, proper drainage of the court itself mainly by chiselling and partly by filling in depressions and thorough clearance of silt from the natural spring-well attached to the Cave, by pumping out all water and removing a thick moss deposit from over the walls and steining. Three cells in which images are enshrined have been secured against profanation by providing them with wooden doors of approved pattern. At Mohenjodaro the monastery surrounding the Stupa was thoroughly conserved. The walls of monastic cells have been restored to different heights so as to show their outer as well as cross walls (Plate II, *d*), which, having perished down to the floor level, could hardly be traced before conservation (Plate II, *c*). At the same time the floors of cells have been levelled and the sills and jambs of their doorways repaired in accordance with their original plan. Deep gaps in the masonry of the corners of the Stupa platform have also been made good.

The following eight works of special repairs were entrusted to tne Public Works Department :—

BIJAPUR.

(1) Clearance of grass and vegetation from the compounds of all the more important monuments was carried out at Bijapur where repairs in lime mortar were also done to the plaster and pointing of JAMI MASJID, GOL GUMBAD, MECCA MASJID, IBRAHIM RAUZA and a number of other monuments as a special measure in connection with the visit of His Excellency the Governor of Bombay which took place on the 13th and 14th of August 1934.

(2) A patch of worn out masonry which was hanging loose over the last landing of the spiral staircase to the top of HAIDARI BURJ was renewed.

(3) The restoration of a part of the broken cornice and brackets at the north-east corner of the façade of the prayer hall of the JAMI MASJID was completed.

(4) The dismantling of the gateway of the MOSQUE of BATULLAH KHAN which was begun last year, was finished during the year under report and the masonry material recovered from it was properly stacked in a safe corner of the compound of the same mosque.

BELGAUM DISTRICT.

(5) The compound of the JAIN TEMPLE in the FORT at BELGAUM was cleared and levelled and a small garden laid out in front of it.

DHARWAR DISTRICT.

(6) A broken lintel in the NAGARESVAR TEMPLE at BANKAPUR in the Dharwar District was supported on L irons which were placed along its edges; and the compound of the temple was cleared of all débris and rubbish deposits.

RATNAGIRI DISTRICT.

(7) Special repairs which have been in progress for the last two years at the JAMI MASJID at DABHOL, an ancient port town along the Konkan Coast in the Ratnagiri District were completed.

SURAT DISTRICT.

(8) The wooden gate of the ENGLISH CEMETERY at SURAT was repaired and all open joints in its compound wall were treated with lime pointing.

BIHAR AHD ORISSA.

By Mr. G. C. Chandra.

For Bihar and Orissa an allotment of Rs. 28,286 was made.

At NALANDA side by side with the excavation important conservation works were carried out. A sum of about Rs. 5,000 was utilised in repairs to Monasteries 9 and 10, and to the stupa at site No. 3. The two buildings were in a very bad state of preservation and steps were taken to preserve them as far as possible. The external walls of both the buildings on all their four sides being in a tottering condition, attention was mainly given to the repair of these walls. It was, however, possible to repair during the year only the east, south and half of the west walls of monastery No. 9 and the east, west and half of the south walls of monastery No. 10. The bulged and cracked walls were dismantled down to the plinth and the walls restored in accordance with the original work. The heights of the walls were not carried higher than the old walls left *in situ*. An important and economical method of construction introduced during the year in carrying out repairs to the monasteries was that, while building up the walls, suitable tail-bonds were provided at regular intervals of 5 feet or so throughout the whole length of the wall repaired, instead of building

it to its full width as was the case before. The superstructure of the external walls was built up alternately with lime and mud mortar at regular intervals—two courses of brickwork of an average width of about three feet being laid in lime mortar after the brick-in-mud masonry of similar width had been taken up to a height of three feet.

The chief repair works done during the year were to the stupa at Site No. 3, where the earthquake of the 15th January, 1934 had wrought great havoc. A special grant of Rs. 2,500 was obtained for the damage caused by the earthquake and repair works were undertaken at this stupa site and completed before the end of the year. In the first instance, all the damaged votive stupas situated on the east front and south-east corner of the main stupa, were made secure. The south-half of the east external wall of the 5th level stupa was thereafter re-built, similar to the original as it stood before the earthquake. In repairing this wall, great care had to be taken in the rebuilding of the beautiful niches with their decorated pilasters and the work was made to conform exactly with the ancient work. The tower situated at the south-east corner of the 4th level stupa, and the external wall of the 4th level stupa itself, were repaired wherever necessary. Having completed these works, the task of rebuilding the cut face of the east façade (both the projecting and the back façade) of the 5th level stupa, was taken up. It was built up for a height of over 40 feet, and the conservation was done entirely with lime masonry of an average depth of 2 to 3 feet from the face. Sufficient batter was given to the structure to ensure its safety and it was further strengthened by the provision of cement concrete ties at regular heights of 10 feet or so along the whole length of the wall. The top surface of this structure was then made watertight and a *pucca* drain was also provided for the discharge of rain water that may collect on the top surfaces. The damaged shrine at the top of the stupa mound, and its adjacent walls were next made good and subsequently the wall tops were made watertight with concealed concrete. Finally, all cracks on the stupa mound, as well as on the tower standing on the south-east corner were properly filled and damaged plaster and images were made good (Plate III, *a*, *b*). It may be added that in carrying out all these conservation works old bricks collected from the Nalanda sites were usefully utilised and no new bricks were manufactured for the purpose.

At Rajgir in the Patna District the clearance of jungle was made in the Maniyar math and Sonbhandar area as well as in and around the shell inscription area, the Bimbisāra Jail, the Gridhrakuta hills where the Bimbisāra road and the old caves are situated, and at the old Jain cave area situated on top of the Vaibhara hills. At the shell inscription area, the clearance has brought to light an old inscription inscribed on a stone which was lying on the road side, on the west side of the compound wall; and at the Gridhrakuta area on top of the hills traces of a small cave which still requires further exposure. This cave is situated about 30 feet below and on the west side of the main shrine situated on the top of the hills. On the east side of the main shrine, there seem to be other shrines, which also may be traced in due course. Clearance at the Bimbisāra Jail area situated at the south east side of the south gate of the inner fort

wall of the old capital has brought to light enclosure walls of stone masonry about 200 feet square, with small damaged bastions at each of the corners and an entrance door on the north side. This area requires further exploration with a view to finding out the nature and extent of the walls, cells, etc., of the Jail. At Maniyar math *débris* was removed from the east side of the main structure. Excavation at the north-east corner of the main structure has brought to light two small damaged structures, which appear to be shrines one of them seeming to belong to the earliest period of construction at this area. (Plate III, *c*.)

At the Sonbhandar area, attention was mainly directed to the clearance of *débris* and huge stone blocks from the interior and outside of the Vaisnava Cave (?) discovered last year. A row of sculptures in low relief in separate panels representing figures of Jain *Tīrthaṅkaras* and their attendants has been revealed. There are five such panels (total length 8′-4″ and height 2′-5″) on the right hand side of the doorway as one enters the cave and one panel (3′-6″ high and 2′-8″ wide) on the left side. Of these Jain *Tīrthaṅkaras* two are seen standing on a lotus *āsana* and may be identified as *Padmasambhava*, one is *Pārśvanātha* and the three others *Mahāvīra*. All the figures are unfortunately damaged owing to the collapse of the vaulted roof of the cave.

The inside of the Vaishnava Cave has now been fully cleared. It measures 23 feet in length, 14 feet in width and 10′-8″ in height. The ceiling of the cave is barrel vaulted and is very badly damaged, in fact more than half of it has collapsed. The doorway is also in a bad state of preservation. On the inner face of the entrance wall on the left side an old inscription in two lines was found. The stone block on which the inscription is written has, however, come out of the wall and requires to be refixed in position. Another inscription in one line was found on the outside wall of the cave (on the left side of the entrance doorway).

It was mentioned in the last year's report that the Vaishnava Cave seemed to have been a two-storied structure. During the year the upper storey consisting of a hall was traced. The hall, which had brick walls, was found in a bad state of preservation and its roof had collapsed. The length of the back wall can be identified, but the side walls are preserved only to a certain length while the front wall is altogether missing. Traces of a concrete floor have also been found. The hall measures 31 feet in length, but its breadth cannot be exactly determined.

Conservation works carried out at the Maniyar math at Rajgir during the year, consisted of rebuilding and making good up to a height of 1′-6″, the stone compound wall on the west wing of the north wall to a length of about 130 feet, and on the west side to a length of about 32 feet; repairing the two brick shrines or platform-like structures situated on the east and west sides of the staircase of the main structure (Plate III, *d*); repairing the later wall on the south side of the main structure and providing a concrete lintel for supporting it properly; underpinning the inside walls of the main circular temple and laying concrete on the floor of the temple; and executing repairs to the Vaishnava Cave

where the sculptures on the stone panels, which had almost fallen, were refixed in their original positions. The stones of the front wall of the cave, which were in danger of collapsing and the stone slab with the inscription were refixed in their proper positions by copper dowels set in cement. The brick wall of the verandah of the cave was partly repaired and the remaining portion of the roof of the cave was made watertight. A long drain was provided on the rock surface to divert rain-water.

Besides the works detailed above, carried out departmentally by the Archæological Superintendent, several other important ancient monuments in Bihar and Orissa were attended to by the Public Works Department. Special repairs were carried out at the following monuments (1) the old and new FORTS at PALAMAU; (2) MAKHDUM SHAH'S TOMB at MANER in the District of Patna; (3) Ruined TOMB of MAHMUD SHAH at COLGONG in the Bhagalpur District; (4) Stone steps around SHER SHAH'S TOMB at SASSARAM in the Shahabad District; (5) ASOKAN INSCRIPTIONS on CHANDAN SAHID PIR HILL at ASIQUEPUR also in the Shahabad District. At the last named monument warning and direction boards were provided for the convenience of visitors. Repairs necessitated by the earthquake were undertaken at the following monuments :—The walls and gates in five different sections at the FORT at MONGHYR; SHAMSHER KHAN'S TOMB at SHAMSHERNAGAR in the Gaya District; SHER SHAH'S TOMB at SASSARAM and the Palace buildings within the ROHTAS FORT at ROHTASGARH both in the Shahabad District.

CENTRAL PROVINCES AND BERAR.

By Mr. G. C. Chandra.

The general financial stringency prevented the starting of works of several special repairs in the Central Provinces and Berar. The small balance available after meeting the demands for annual repairs and maintenance was, however, utilised in carrying out five small works at the following monuments :—

Fixing an historical tablet in the wall of the Chhatri inside the SARAI at RAVERKHEDI in the Nimar District and erecting enamelled steel notices at a number of monuments. At BIBI SAHEBA'S MASJID at BURHANPUR in the Nimar District some land and modern buildings were acquired to make the old Masjid visible from the adjoining public road. In carrying out maintenance works a well laid out ancient courtyard with flower-beds, fountains and pathways, was brought to light in front of the PALACE BUILDINGS at BURHANPUR. The condition of these buildings has been generally improved. The deposited silt and weeds were removed during the year from the beautiful built-up silting tank in front of the rock-cut dam, with two pleasure pavilions on either side of it, at MAHAL GURĀRĀ (correctly Gul-Ārā, named after a concubine of Prince Khurrum, afterwards Shah Jahan). The pavilions, are on each side of the Bari Uta-oli nadi river which flows close to the village of Mahal Gurārā some 10 miles from Burhanpur. The pavilions, each measuring 73′-3″ ×

20′-8″, are built on large rectangular stone platforms, 111′×52′ each, connected with one another at their southern ends by a rock-cut dam (280 feet long and 10 feet wide at the top) across the river and at their northern ends by a built-up stepped *bund* 14′-6″ wide. A flight of 10 steps at each extremity gives access to the platforms.

BENGAL.

By Mr. N. G. Majumdar.

During the year under report a sum of Rs. 22,531 was spent on conservation in Bengal.

At the Main monument of PAHARPUR, the north and south walls of the western antechamber and *maṇḍapa*, the west and east walls of the southern antechamber, the east wall of the southern *maṇḍapa* and the high wall of the circumambulatory passage on the north-west of the monument were conserved during the year. In the Monastery area, the outer faces of the southern and western walls of the cells on the south-west were attended to, and at SATYAPIRBHITA ten selected *vedis* or shrines were thoroughly repaired, the ornamental brickwork being renovated wherever necessary. The decayed masonry of the bulged out walls of the Main monument and of the Monastery as well as of the shrines of Satyapirbhita was carefully dismantled, and rebuilt strictly in conformity with the original outline, special care being taken to preserve their old appearance. These works were undertaken by the Superintendent himself.

Some of the monuments at GAUR and PANDUA, which had been damaged by the recent earthquake, had to be specially repaired. The facing brickwork of the Baisgazi wall had collapsed at several places and a portion of the wall had, therefore, to be rebuilt, while a number of cracks were repaired with cement concrete. Renovation of the face brickwork of the Dakhil Darwaza and the Dhanchak mosque was effected and some repairs were also undertaken at the Chhoti Sona Mosque where some fallen stones were reset, and the cracks in the dome and the stone wall were grouted with cement. The cavities which had appeared in the walls of Chhoti Sona Mosque were filled up with concrete, and the bulged out facing brickwork was rebuilt. One of the walls of the Gunmant mosque had also to be rebuilt and the cracks in its domes repaired. Cracks which had appeared on the Lukachuri gate and Tantipara mosque were attended to and some of the face brickwork of the latter was renovated. The brickwork in the superstructure of the ground floor and the facing brickwork of the western wall of the Badshah-ka-takht at the Adina Mosque, which had been badly affected by the earthquake, were rebuilt, as also was an arch over its south wall which had been seriously damaged. At the Qutbshahi mosque the stones that had fallen from the south-east terrace were reset and the damaged brickwork of the wall was repaired. Concrete was used to fill up the gaps caused by missing stones in the surface of walls and several cracks in the arches and the walls were duly attended to.

Special repairs to the JORE BANGLA TEMPLE in mouza Dakhin Raghabpur at PABNA which had been taken in hand in the previous year were completed. The works included the removing of the jungle and trees from the temple compound, grouting several cracks with cement mortar, replacing disintegrated bricks by fresh ones, renewing the roof over the arch rings, repairing the platform around the temple, dressing the compound and giving it a gentle slope towards outside, providing an expanded metal door and fixed windows in the openings of the temple and erecting wire fencing with a cattle-proof iron gate around it.

The special repairs which had been commenced at the MATH of KODLA at AYODHYA in the Khulna District last year were still in progress at the end of the financial year. The works already executed comprise the rebuilding of the disintegrated brickwork of the basement and of the rectangular bands around the arch openings. In carrying out the repairs, special care was taken to make the renovated parts match with the original brickwork as far as possible, though plain projections in place of the missing ornamental works were substituted.

ASSAM.

By Mr. N. G. Majumdar.

In the province of Assam the total expenditure on conservation was only Rs. 6,787. Annual maintenance included such minor items as the provision of enamelled notice boards to the five rock-cut caves at JOGIGORHA, District Goalpara, the putting up of wire fencing round the BOLSON GROUP of monoliths in the North Cachar hills and certain works carried out in the DEVIDOLE temple at GAURISAGAR in Sibsagar District. The roof of the Natmandir of this temple which had been badly leaking was set right with cement and surki plaster. Several important items of special repairs to the monuments in Assam, which were to have been taken in hand during the year, had to be postponed as a large portion of the conservation grant was diverted elsewhere for urgent earthquake damage repairs.

MADRAS PRESIDENCY AND COORG.

By Mr. H. H. Khan.

During the year out of Rs. 19,980 allotted for the conservation of ancient monuments in the Madras Presidency, Rs. 1,814 were spent on special repairs and Rs. 17,195 on current repairs and maintenance. From an amount separately allotted, a sum of Rs. 300 was incurred on works in the Province of Coorg. With two exceptions all works were executed as usual through the agency of the Public Works Department of the Madras Government; an additional charge of 19 per cent. on the cost of such works being paid for this service. The exceptions were the works in connection with the preservation of the Buddhist remains at Nagarjunakonda and numerous interesting carved stones lying amidst the ruins at Hampi (Plate IV, *c*, *d*) which, it was considered, could better be carried

out by the Archæological Department itself. The cost of these two works was met from the grant of Rs. 1,000 allotted for excavation purposes.

Special repairs were limited to a very few monuments and were also restricted to such measures only as were considered most urgent for the safety of the ancient remains at Amaravati, Anjengo, Poli and Sultan's Battery.

At AMARAVATI, GUNTUR DISTRICT, a number of carved Buddhist stone fragments had been preserved in an enclosure of wooden railings with brick masonry pillars. On a windy day some of the surrounding trees fell and damaged part of the enclosure, which has now been repaired and put in order.

The FORT at ANJENGO, built in 1694 at the time of the first English settlement, is situated on a strip of land surrounded by sea and the Travancore State territory. Here the crumbling brick masonry of the rampart walls was patched up and plastered. The old flag-staff surviving in one of the bastions was also secured and the complete clearance of jungle growths from and around this small square fort was undertaken.

The conservation of the JAIN TEMPLE at SULTAN'S BATTERY, Malabar District, commenced in the previous year, was continued and almost completed. The work consisted of refixing some disturbed pillars and lintels, restoring the small *maṇḍapa* and raising with fallen stones as far as possible, the enclosure walls in order to afford protection to the temple from stray cattle.

The valuable temple of ATTIRALA PARASURAMA at POLI in the Cuddapah District was also in urgent need of repairs. The concrete roofing over the *maṇḍapa* was made watertight and the adjacent dangerous trees were cut down and rooted out, the site being left properly levelled all round, neat and tidy. This temple, containing a large stone image of Parasurama carved in the round, is an interesting old building and is considered to be of great sanctity as there Parasurama was freed from the sin of matricide. It is built of stone with brick and plaster superstructure, the summit of the roof of which is in the form of a small Buddhist Chaitya or Assembly Hall with the usual waggon-headed roof and apsidal end. The walls are carved with mythological figures, diminutive pilasters and ornamental mouldings and the *gopuram* is decorated with stucco figures. The temple contains a few inscriptions and these show that it was built in the 13th century.

The ruins at HAMPI, the historical capital of the ancient Vijayanagar Kingdom, the extensive HILL FORT of GINGEE and the group of monolithic and rock-cut temples, known as the SEVEN PAGODAS being among the most important protected archæological monuments in the Circle, received as usual special attention in regard to their general upkeep and improvement where necessary. Lesser measures were undertaken at other monuments such as the PALGHAT FORT, Malabar District (Plate IV, *a*) the DINDIGUL FORT, Madura District, the UDAYAGIRI FORT, Nellore District and the DANSBORG CASTLE at TRANQUEBAR, Tanjore District, where jungle was removed from battlement walls, disturbed masonry made good, leakages in the buildings standing within the walls of the Forts stopped and rain water drains attended to.

COORG PROVINCE.

In the province of Coorg with an allotment of only Rs. 300 it was possible only to clear a little rank vegetation from the Fort, the large masonry Elephants, the Raja's seat at MERCARA and three JAIN TEMPLES at MULLUR.

BURMA.

By U. Mya.

The expenditure on conservation in the Burma Circle during the year amounted to Rs. 29,960 including agency charges. The programme carried out consisted mainly of annual repairs to and maintenance of monuments and attached gardens. Only one item of special repair was funded, that being the continuation of the previous year's work on the Chief Queen's Confinement Room of the PALACE at MANDALAY, of which notice has been already made in the report for that year. This work has been completed and the building is now in very good order.

The Palace buildings at Mandalay received their due share of attention as far as funds permitted. The collapsed wall on the west side of the Apartment with a fountain was rebuilt during the year. The old wall consisted of the usual Burmese design of bricks nailed to plank walling and then plastered over. The new work was executed in plaster on expanded metal lathing. Extensive repairs to the flooring of the Nantha Saung were carried out, including replacement of rotten joists, provision of post footings, where it was found necessary, and levelling up. Corrugated iron roofing and timbers in the Southern Throne Room and the decayed timber in the flooring of the North Dedicating Pyatthat were renewed. Some of the large timber pillars of the Lily Throne Room were found to be decayed below the floor level and had to be spliced. During this operation masonry footings were constructed for the feet to rest on. The usual whitewashing and earth oiling were also carried out as funds allowed. The above works on the Palace at Mandalay cost Rs. 4,013. There is still a large proportion of timbering in many of the Palace structures, which is decayed to varying degrees, but finances do not yet permit of complete renovation.

Of the Pyatthats on the walls of Fort Dufferin at Mandalay those numbered 3 and 20 had settled badly owing to the decay of the feet of the posts. Masonry footings were constructed for these and the structures levelled up. The renewal of decayed timbers and carvings in Pyatthats Nos. 8, 10, 11 and 21 was carried out. A certain amount of earth oiling was done to the corner Pyatthats and those over the gates. The expenditure on the Pyatthats amounted to Rs. 4,012.

There is nothing special to mention in connection with the gardens on the Palace platform at Mandalay. The usual routine work of maintenance of lawns and flower beds was carried out. The strength of the garden staff remained unchanged and the upkeep of the gardens during the year cost Rs. 3,858.

Due attention was also accorded to the monuments at PAGAN, where a daily labour gang of coolies was employed for the first time for a period of about six months in clearing jungle and undergrowth along paths leading to the Central

protected monuments and around those monuments themselves. The stone masonry wall on the river side of the Bupaya Pagoda which protects the latter from the river floods was extended 22 feet thus giving the pagoda greater security against the floods. The window openings in the Patothamya Temple were provided with expanded metal screens to prevent the entry of bats and the four entrances or door-openings of the Kondawgyi Temple were provided with wooden doors of Burmese pattern made to swing on pivots and sockets. The latter temple is situated on a hillock in the sandy dunes rising a certain height above the surrounding level at Nyaungoo. The strong southern wind which prevails during the greater part of hot weather carries with it a quantity of dust and does much harm to the wall paintings inside the temple. The provision of wooden doors mentioned above will, it is hoped, serve as a preventive against the injurious effects of the dust. Brickwork repairs were also carried out at the steps on the east and west sides and corners of the first terrace of the Shwesandaw Pagoda and at the corners of the first terrace and enclosure wall on the west side of the Damayangyi Temple. The cost of the works at Pagan including that of the daily labour gang, already referred to, amounted to Rs. 3,730.

The annual repairs carried out to the monuments at other localities, namely :—SYRIAM, PEGU, HMAWZA (Old Prome), AMARAPURA, KYAUKSE, SHWEBO, AVA, MINGUN and SAGAING differed little from those executed in other years. They consisted mainly in uprooting trees and plants growing on the monuments and replacing the bricks displaced thereby in lime mortar, patching up plaster work, restoring stone flags missing from stone pavements, jungle clearing, whitewashing, earthoiling, coaltarring and maintaining approach roads.

There is one very important point in connection with conservation work in Burma of which mention may be made. During the last session of the Burma Legislative Council questions were asked by an Honourable Member (and it is said that he voiced the wishes of a certain section of the Buddhist community at Nyaungoo) requiring that Government should cease interference with and relinquish control over 'protected' religious monuments in Burma. The wisdom of the questions is not at all apparent, and it is unfortunate that such questions should be asked. But wiser counsels prevailed, and it was pointed out by the local Government that such monuments are protected by Government to prevent them from falling into decay.

RAJPUTANA AND CENTRAL INDIA.

By Mr. H. L. Srivastava.

AJMER.

A sum of Rs. 1,472 was spent on the maintenance of the marble *baradaries* on the ANASAGAR *bund* and Rs. 675 on annual repairs to other archæological buildings. Anasagar owes its name to king Arnoraja or Anaji (1135-1150 A.D.)—the grand-father of the illustrious Rajput chief Prithvi Raj Chohan, who built the embankment. Shah Jahan in 1637 A.D. added the marble

parapet and erected five elegant *baradaries* of polished marble which considerably added to the beauty of the lake. Owing to reduced grants and the extra expenditure involved in repairing the serious damage caused by the earthquake of January 1934 it was possible to spend only a small sum in relaying the worn out portions of the terrace.

Jaipur State.

Nothing definite is known about the history of Amber till the time of Raja Bihari Mal, who made an alliance with Babar about the year 1527 A.D. by virtue of which he was created a *Mansabdar* of 7,000 horses. His adopted son Mansingh I, Mirza Raja Jai Singh I and Sawai Jai Singh II were chiefly responsible for enhancing the architectural beauty of the buildings—the most remarkable being the Palace. Upon the advice of Sir John Marshall the restoration of the Dilaram Bagh at Amber has been taken in hand and is now partially completed. Annuals have been planted in the upper terrace and give a pleasing effect when viewed from the Palace above. The pavilions on the east and west are now exposed to view after the eradication of the thick growth of mango trees. The causeways have been enlarged by the addition of a strip of concrete, and *ingadulcis* hedges have been planted along the borders. In the Diwan-i-Am, which is the work of Mirza Raja Jai Singh I, worn out *purdahas* have been replaced by new ones; and the *pietra dura* work in Jasmandir, wherever damaged, has been made good.

Gwalior State.

The monuments in Gwalior State are being well looked after by Mr. M. B. Garde, Superintendent of Archæology. Among the interesting buildings, which are being conserved, mention may be made of a Hindu monastery inside the Surwaya Fort, which is a rare specimen of Brahmanical *maths*.

Surwaya or Sarasvatipattana or Sarasvati, as we learn from an inscription dated V.S. 1341 (1284 A.C.), remained under the rule of the Kachhawahas, Pratiharas and Jajapellas before it was conquered by the Muhammadans. The present ruins range over a period of 500 years beginning with the 10th century A.D. The Fort, which is distinctly of the Muhammadan period contains within a Hindu Monastery, three temples and a *baoli* or stepped well. The monastery is built around a rectangular courtyard surrounded by pillared corridors on three sides and a spacious hall on the fourth. This hall may have served as a dormitory for the monks. On the top of the monastery is a shrine with an Indo-Aryan *śikhara*. Mr. Garde has found another similar structure at Ranod. In this latter structure is preserved the original inscription of about the 9th century A.D., which was engraved in the time of a king Avantivarman. Another Hindu *math* is mentioned in the Chandrehe inscription of Prabodhaśiva in the Rewa State dealt with by Mr. R. D. Banerji in his Memoir on the "*Haihayas of Tripuri and their Monuments*" (*p. 117*).

Three Hindu temples enclosed by a common surrounding wall stand to the north of the *math*. Part of the enclosure is now hidden under the wall of the Muslim citadel on the north side, and it is believed that a fourth shrine occupied

the north-east corner of the enclosure. All these shrines are assignable to about the 10th century A.D. Some striking carvings consisting of vases and palmettes, gods and goddesses are interesting. In the northern portion of the enclosure and between the temples is a Hindu *Vāpī* square in plan, which must have supplied water to the pilgrims.

Chhattarpur State.

No grant in aid could be given this year to the Chhattarpur State. The Durbar, however, carried out a few repairs to some of the temples at Khajuraho and kept them neat and tidy.

Trial excavations conducted at the western extremity of a mound situated on the Khurar river opposite to the Dulhadeo temple brought to light a small shrine together with broken images of *Gandharvas*, *Nandi*, a devotee seated cross-legged and several architectural members.

Idar State.

The Idar State, which is situated in the Western India Agency, is rich in monuments and in view of their importance the Durbar has created an Archæological Department. It is gratifying to learn from the report of Mr. P. A. Inamdar, Director of Archæology, Idar State, that he has collected about 60 sculptures and 24 inscriptions from all over the territory and brought them to Himmatnagar—the capital of the State. The images, which reveal a new school of sculpture, appear to be very interesting and are assignable to the 6th-7th century A.D. Among the inscriptions discovered mention may be made of one recording the erection of the *maṇḍapa* of the Vaidyanath Temple at Vadali in Samvat 1264 (A.D. 1208) and another reporting the construction of a temple dedicated to Sun dated Samvat 1354 (A.D. 1298). No conservation was done beyond fixing an expanded metal frame on the entrance to the niches containing the *Mātrikas* in the stepped well at Vadali to protect them against injury. It is proposed to excavate the mounds at Khed Brahma and Samlaji both places of religious sanctity coming down from ancient times.

Dhar State.

During the year a sum of Rs. 11,427-8-4 was spent in carrying out repairs to the Nilkanth, Water palace, Chhapan Mahal, Baz Bahadur's palace, Jahaz Mahal, Hindola Mahal, and Ashrafi Mahal at Mandu and the Fort and Bhoja Shala at Dhar.

At the Nilkanth, cracks in the north façade of the east and west wings were grouted with cement, the disintegrated stones in the pavement on the east were replaced by new ones, a drain was provided along the length of the east wall; a dry stone wall was added to give additional support to the terraces above, which were restored a few years back, and, to avoid accident, a low edging of red stone was provided on the west of the man-hole over the underground drain. Ordinary

repairs such as waterproofing the dome, replacing worn out stones by new ones, filling in gaps and tidying up the approaches were executed at the BAZ BAHADUR'S PALACE, JAHAZ MAHAL, HINDOLA MAHAL and ASHRAFI MAHAL.

At Dhar the outer wall on the west front on either side of REVINI GATE was repaired and the front entrance of the BHOJA SHALA was provided with a new door. At the MUNJ SAGAR a small temple having a red stone facing inside and of trabeated construction was discovered at the foot of the embankment. The sanctum measures 6′×6′×8′, and after clearance a *Sivaliṅga*, an image of *Pārvatī* and a few more images were brought to light.

It is a pleasure to state that the Dhar Durbar takes seriously its responsibilities for the conservation of its historical monuments, and contributes generously to their conservation.

Repairs to the RAISEN FORT in the Bhopal State and monuments in the Bikaner and Udaipur States are reported to be in progress.

SECTION II.—EXPLORATION AND RESEARCH.

EXCAVATIONS AT TAXILA.

By Khan Sahib A. D. Siddiqi.

The Dharmarājika Stupa at Taxila with the smaller chapels and stupas attached to it forms one of the most striking group of monuments excavated at Taxila. The area of the monastery lying at some distance to the north has received attention during the last few years, as Sir John Marshall was anxious that in his projected monograph on Taxila a complete plan of the monastic complex of buildings attached to the main area already excavated should be included. During the year under report, the plan of the entire monastic area except a small portion at the north-west corner was laid bare (Plate V). It has not been possible in places to uncover more than the bare outline of the structures of the later periods of occupation, and it is possible that at some places there are older buildings underneath the existing ones.

The general lay-out of this area reveals the existence of a court of cells on the North and another on the East, of an open area in which the most prominent building is a rectangular Stupa (No. I) approached from the South. Of these the court of cells on the North is the most impressive building, measuring 107 feet externally from East to West and 109 feet from North to South (Plate VI, *b*). This monastery conforms to the traditional plan with an open court 47 feet square in the centre flanked by a 12 feet broad verandah on all sides in front of the cells for the residence of the monks, the latter numbering 19 in all. There must have been 4 rooms on the South side from which access was given to the interior of this monastery. The only respect in which this monastery differs from others at Taxila (*e.g.*, the Jaulian or Mohra Muradu monasteries) is the absence of a bath-room in the open court at the centre. The masonry employed in this building is of the type described as semi-ashler and semi-diaper which has been assigned to the 3rd and later centuries by Sir John Marshall. The occupation of the buildings for a long period, perhaps till the 5th century A.D. is indicated by the fact that the level of the floor had to be subsequently raised. This is evident from the fact that the original doorways of this monastery leading to the cells were blocked, in order to suit the raised floor level, and new drains were constructed for the disposal of spill water at a higher level as seen in Plate VI *c*. In some of the chambers, niches for keeping lamps are provided. Layers of ashes and charcoal have been found on both earlier and later floors, which confirms the belief that fire more than once was responsible for the destruction of the monastery. A quantity of charred wheat recovered from this court and now preserved in the Museum points to the same conclusion. The doorways, styles and lintels of the cells had sloping jambs fashioned out of *Kanjur* stone, some of which are still *in situ*.

The eastern court is less impressive than the one on the north. It is 84 feet square on the outside and has some 13 rooms, none of which shows substantial construction, particularly in the last period of occupation. A stairway piercing the western wall led to the lower open area, but this access was also blocked at a later date. The earlier masonry at this site was of the semi-ashlar type, but the later construction was too poor to withstand the effects of pillage and arson, which must have caused the destruction of this monastery in the 5th or 6th century. The find of large lumps of baked clay shows the enormous quantity of mud used in the mortar, which clearly demonstrate the poverty of the late builders. The large quantity of ashes and charcoal vividly tell the story of the big fire that consumed the woodwork of the buildings.

In the open area to the south of Stupa I there are few remains of buildings (Plate VI, *a*). The main Dharmarājika Stupa and its adjuncts are connected with the monastery area by a staircase on the south, which is flanked by a number of cells to be attributed to the same period as Stupa I. In the south-east part of this area lies a small Stupa (No. III). It measures 8 feet square and is not preserved more than 2 feet in height. There are remains of cells built against the eastern wall of the enclosure.

Stupa I, which appears to be the main and most substantial building in this part has its core of limestone blocks set in mud with a facing made entirely of *kanjur* stone (Plate VII, *b*). Except some stucco images near the north-west corner which are manifestly of a later date, there was no surface decoration. The façade of the stupa is relieved by tall corinthian pilasters standing on a base moulding of torus and scotia pattern. The Stupa seems to have been originally crowned by a huge umbrella, of which fragments (the largest measuring 5 feet across) were discovered on the south east of the stepped approach leading to the stupa. A cylindrical block of *kanjur* with a mortice hole in the centre which was found here was probably intended to intervene between the tiers of umbrellas. If the distance at which the biggest fragment was found away from the centre of the stupa is an indication of the severity of the catastrophe that overtook the structure, it may be noted that the earthquake or storm or other calamity which deposited the piece 35 feet away must indeed be very violent. The north façade of the stupa has bulged out considerably, perhaps, owing to the weaker foundation on this side. The original structure must be attributed to the 1st century A.D., although there are traces of later constructions such as the pedestal on the west and the remnant of a stucco figure on the north-west.

Stupa II is small structure, 13 feet square standing on a plinth 2 feet 6 inches high. The superstructure survives to a height of only 2 feet, the upper layer being relieved with Corinthian pilasters alternating with stucco images and the lower with figures alternating with lions (Plate VII, *a*).

The most important discovery during the year was that of Stupa No. IV, which lies within an enclosure to the west measuring 20 feet each way (Plate VII, *c*). It was constructed in the same style as Stupa I, although no traces of the approach from the south are visible. Traces of lime plaster with red paint are found on

the small projection in front. Being buried deep underneath some later walls, the stupa remained undisturbed and it was only after the dismantling of the later structures that it was possible to expose its face. When this was accomplished a shaft was sunk in the centre to the depth of 18 feet from the surface. This was rewarded by the find of a square block of *kanjur* with a tapering cubical receptacle about 8 inches square at the top and 6 inches deep. This contained two steatite caskets one within the other in which the enshrined relics enclosed in a tiny gold casket were found (Plate VIII, *a*). Along with this was a silver coin of the dioskourñ type of Azilises and a Roman coin issued by Augustus (Plate VIII, *b*), besides two decayed seed-pearls, a tiny gold ornament of thin sheet and some glass beads. There can be hardly any doubt that the deposit was made in the early part of the 1st century A.D. The find affords new data for the correlation of Azilises with Imperial Roman issues and as Kadphises I, who invaded India, copied the bust of Augustus on his coins, Azilises should not be far removed in date from the period of the Kushan invasion.

The area around Stupa IV is bounded on the west by a long wall which seems to mark the limit of this monastic area. The rooms discovered here do not yield any regular plan. Both the small and large diaper types of masonry are found in the construction of the cells and in some structures, apparently belong to the later construction, exhibit the semi-ashlar masonry characteristic of the little Kushan period.

Some of the latest structures found on the site between Stupas I and IV and to the North-West of Stupa I (Plate VII, *d*) are to be attributed to a period later than the four regular periods of Taxila masonry as defined by Sir John Marshall. Although in appearance they are what may be called of the rough rubble type of masonry they are in fact the products of an age in which the regular constructions of the previous periods could not be attempted. The material available from the ruined buildings of the earlier period seem to have been hastily utilized in constructing buildings, regardless of structural propriety. Fortunately, these structures are not characteristic of the main sites of Taxila and may only indicate the straitened circumstances of the people who occupied the ruined monasteries in the last period. Between the Stupa No. 1 and the northern monastery is a block of substantial structures. A high terrace surmounted by a cornice of which only the lower projecting course has survived is superimposed by long walls standing to the height of 10 feet from the surrounding level. A flight of steps connects this terrace with the northern court of cells, while to the west is a spacious hall measuring 34 feet square. The walls here in turn are coated with mud plaster and the frequency of repairs is indicated by irregular masonry, and the use of bricks in the midst of the usual semi-ashlar stone masonry. The entrance to the hall lies in the east, and the bevelled edge of the south jamb indicates where the wooden style was fitted. An audience hall measuring 36′×36′ in this group is another substantial structure. The four bases of pillars on which its roof was supported are *in situ* (Plate VI, *d*). Two sandstone circular pedestals resemble bases of Ionic columns from the temple at Jandial and were apparently removed from an earlier building.

Of the antiquities discovered during the year the following deserve mention :—

(1) A stone figure of an unidentified deity 8 inches high holding a parrot in left hand and a spear in right, fully ornamented (Plate VIII, *f* 1) (No. Dh. 34-188).

(2) Capital of a pillar composed of four elephants standing back to back with figures of Nike on the shoulder of each elephant and a winged bird between. The piece is much damaged and the workmanship is crude (Plate VIII, *c*) (No. Dh. 34-750).

Stucco head of Bodhisattva with fillet band over curly hair, traces of red paint on fillet, hair, eyes, etc. (Plate VIII, *c*). No. Dh. 34-680.

Copper finial in the form of a complete *Dharmachakra* on a crescent base and surmounted by three wheels and part of copper shaft below (Plate VIII, *g*). Dh. 34-918.

Lower portion of an earthen bowl-shaped casket in the form of four elephants carrying the vase on their shoulders. Lid found in another part of the excavation fits closely as seen in Plate VIII, *d*. Dh. 34-754.

Square earthen plaque with floral patterns within beaded border engraved on either face. Dh. 34-944.

Circular flat skin rubber of spongy coarse texture. Dh. 34-692.

Reel-shaped earthen ear-plug with lotus pattern on one face. Dh. 34-857.

Circular conch shell pendant with petal carving on edges and a central large hole. Dh. 34-425.

Fragmentary conch shell bangle with row of heart shaped patterns incised. Dh. 34-482.

Half of a goldsmith's mould with 4 grooved ear-pendants, rosettes on one face and 4 channels for pouring molten metal and two socket holes. Dh. 34-75.

EXPLORATION IN THE FRONTIER CIRCLE.

By Dr. M. Nazim.

HARAPPA.

The work at Harappa has been practically in abeyance since the retrenchment campaign of 1931. During the year under report an amount of Rs. 2,245 was spent in extending some of the existing trenches. Thus trench V on mound F was extended towards the south by an area measuring 88 feet in length and 30 feet in width, while on the southern edge of mound AB a further strip measuring 91 feet by 15 feet was excavated (Plate IX, *a*). Trench I in mound D was extended both on the east and west to the extent of about 150 feet on either side (Plate IX, *b* and *c*). Excavation was carried to a depth of 7 to 14 feet but no really deep digging was attempted. The antiquities discovered are of considerable interest, but none of any outstanding value. No complete buildings have been unearthed in the course of this year's work, but remnants of rooms and substantial walls have been unearthed in places (Plate IX, *b*). Mention may here

be made of two circular platforms of concentric brick-on-edge rings in mound F, which are similar to numerous other structures previously exposed in this area. In the western extension of trench I in mound B a big wall probably the boundary wall of two blocks and a long drain, which probably formed part of the main drainage channel in this quarter, are the only structures worth noting. In the trench at the southern edge of mound AB a large napiform jar was exposed by the side of a drain just at the edge of the trench (Plate IX, *d*).

Among the antiquities discovered, mention may first be made of several seals of the common unicorn type (Plate X, 1-6 and 8). No. 1 shows an unusual symbol; and No. 4 has also some rare combination of pictographs. A large svastika seal of faience (Plate X, 7) a fragmentary seal with the attacking bull motif (Plate X, 9) and 3 long rectangular seals without animal motifs (Plate X, 10-12) may also be noticed. A rectangular faience sealing from mound D shows the pictographic legend on one side and the tiger hunt motif on the other, the tree on the farther side of the tiger being shown within a railing or enclosure (Plate X, 13). Another interesting but fragmentary seal in faience (Plate X, 14) shows a deity standing under an arch of *pipal* tree. A tiny terra-cotta fish rather finely modelled in the round (Plate X, 15) shows five pictographs on the underside and the scaly body on the other. A cylindrical terra-cotta sealing has a representation of a *gharial* (fish-eating crocodile) on one side and two ibexes flanking an acacia tree on the other (Plate X, 16). A treble square cross is shown on another fragmentary steatite seal (Plate X, 17). A series of small oblong seals (Plate X, 18-21) was also found in which No. 18 has a boss on the back which is unusual in the small variety. An irregular semi-circular type of seal is shown in Plate X, 22 and 25. A tiny rectangular steatite seal with pictographs on 3 sides and on the fourth a standing divinity wearing a trident shaped head-dress and heavy armlets is interesting (Plate X, 23). A heart-shaped faience sealing (Plate X, 24) and a tiny steatite bar with incised circles on 3 sides and pictographs on the fourth (Plate X, 26) complete the collection of seals and sealings.

Amongst the household objects of which mention may be made is a conch-shell ladle (Plate XI, 1), a lead wire pin with a double volute at the head (Plate XI, 2), faience die with incised circles (Plate XI, 3) and a cubical weight of chert with two of the sides rounded off for readjustment of weight (Plate XI, 4). A vase of soapstone (Plate XI, 8) from mound B, a chert polisher or burnisher (Plate XI, 12), a fragment of alabaster cylinder with spiral ornament (Plate XI, 13) and a cresent-shaped pendant of steatite (Plate XI, 22) are among the other stone objects of interest.

Of the model animals, a faience ram (Plate XI, 5), a miniature damaged figure of a bull with the tail up-turned (Plate XI, 6), a terra-cotta model of a tiger (Plate XI, 7) with ears pierced for suspension, a terra-cotta animal head with a perforation in the neck and a series of incisions on the forehead (Plate XI, 14) and a fine model turtle (Plate XI, 19) are worth noting.

Human figurines in terra-cotta comprise a curious female figure with a fillet on the head and collar and torque (Plate XI, 25), another bare-headed female

wearing ear rings, collar and necklace (Plate XI, 31) and a standing male wearing a necklace with pendants (Plate XI, 29).

Among painted potsherds one with the representation of two bovine animals (Plate XI, 20) is noteworthy. An elliptical double convex bead inscribed with a pictograph (Plate XI, 17), a terra-cotta ball with pictographs (Plate XI, 21), a complete faience bangle similar to other specimens previously recovered from Harappa (Plate XI, 30) and a pottery ring stand, which has a convex instead of a concave body (Plate XI, 24) are the other mentionable antiquities in terra-cotta.

Of the copper implements and objects may be mentioned two chisels (Plate XI, 15 and 16), a copper hook thick at one end (Plate XI, 18), three copper rods tapering towards each end (Plate XI, 9-11) and 3 spear-heads (Plate XI, 26-28) of which one with a long handle and a tapering edge was recovered from spoil earth in the great granary area. A circular silver piece almost resembling a coin is rather remarkable as a type far antedating regular coinage (Plate XI, 23).

Lahore Fort.

In the Lahore Fort some excavations were carried out near the west of the Moti Masjid and the south of Diwan-i-Am courtyard but nothing of importance was brought to light.

Mian Ali Dogran—Sheikhupura.

It was reported that Malik Saleh Mohammad, owner of a mound in village Mian Ali Dogran in Sheikhupura District had in his possession some coins and antiquities, which he had picked up from the mound. At the Deputy Commissioner's instance the owner produced 32 coins and 11 antiquities. The coins were returned to the Deputy Commissioner for taking action under the Treasure Trove Act; and the eleven antiquities were forwarded to Rai Bahadur Daya Ram Sahni, the then Director General of Archæology in India, for examination. He reported as follows :—

"Nos. 1-3 are seal impressions bearing a man's bust and a legend in Gupta Brahmi of Circa 500 A.D. I propose to read the legend as—*Vishṇulaja*; No. 4 is a seal impression which bears the name *Siva*....in similar characters; No. 5 is a mould for making a forehead ornament or something of that sort; No. 7 shows a female fly-whisk bearer upon whose head rests the right hand of a divine figure, which is broken off; No. 11 is a late figure of the god Sun holding ears of corn instead of the usual lotus flowers; Nos. 8 and 9 are lion's head of *Kirti-mukhas*."

EXCAVATIONS IN DELHI.

By Mr. Mohd. Hamid Kuraishi.

Excavations at the junction of the walls of Qila Rai Pithora and Jahanpanah were continued this year and a further length of about 300 feet of fortifications was exposed at a cost of about Rs. 2,000. The Jahanpanah wall as exposed on the south side has an approximate height of 13 feet and a thickness of no less

than 27 feet at one point (Plate XII, *a*). Antiquities recovered from the excavations included a brass cup, 12 copper coins, 20 carved stones, 8 inscribed stones and a few pieces of talisman, etc.

TRIAL EXCAVATIONS AT RANGPUR, LIMBDI STATE, KATHIAWAR.

By Mr. Madho Sarup Vats.

Rangpur lies twenty miles south-east of Limbdi, the chief town of the State of the same name, or three miles north-west of Dhandhuka in Ahmedabad District. Here, on the north bank of the river Bhadar, which flows only during rains is a large ancient mound extending over 80 acres,[1] of which the northern 23 acres are occupied by the village. At its highest part the mound rises from 15 to 20 feet above the level of the surrounding plain which is remarkably flat. The mound is roughly oval in shape, measuring some 2,600 feet from north to south and 2,000 feet from east to west. To the north is the village tank which supplies water to the locality and to the east and west cultivated fields.

At the invitation of the Thakore Sahib of Limbdi, I visited the above mound for a preliminary reconnaissance on the 17th January, 1935, when I was shown a few coins of the Muhammadan rulers of Gujarat, *viz.*, Sultan Muzaffar Shah and Sultan Mahmud (Plate XIII, 45-47), two 'Gadhaiya' coins the common currency of Gujarat in the medieval period (Plate VIII, 43, 44), and a small silver coin of Kumāragupta (Plate XIII, 42-47) which were said to have been found in it.[2] Not being satisfied with the little that was shown to me, I decided to spend three days in trial soundings of the site and on the 19th began digging two small trenches adjoining each other immediately to the west of the village and a third one to its south-east in a field strewn with potsherds. Careful examination of the surface and the brief operations conducted at the site unquestionably demonstrated its prehistoric character although it is poor in structural remains and to a certain extent also in portable antiquities. To those familiar with the prehistoric phase of Indian Archæology, Plates XIII and XIV will at once disclose many similarities in the pottery (particularly the painted ware), as well as in other objects, with those from several contemporary sites in Sind and Panjab.

TRENCH A.

The two trenches to the west lie in the plot marked 150 in the above mentioned map, the one nearest the village being termed A and the other B. The former measures 20 feet from north to south by 12 feet wide; it was begun in an existing pit of 8 feet below the surface and carried down to a depth of 17′ 6″ below surface. Within the next two feet (that is up to a depth of 10 feet), were recovered one complete (A 3) and two slightly broken bricks (A 4) together with a number of half bricks and still larger fragments, every one of which is well burnt. The full brick measures 11·5×5·5×2·25 inches and the

[1] The measurements, etc., are referable to the rough village map in possession of the State.

[2] Their findspots could not be pointed out to me.

fragmentary ones, have the same width and thickness. At this depth were also found two triangular terra-cotta cakes one of which No. A 2 (Plate XIII, 32) is perfectly rounded at the corners. Below 10 feet, brickbats began to grow scarce and from a depth of 15 feet 6 inches the soil was found unmixed with potsherds, brickbats or other artifacts. At a depth of 12 feet was recovered a well preserved tubular bead of blue faience 0·37 inch long and 0·09 inch in diameter A 10 (Plate XIII, 37). The above mentioned objects including bricks, are so distinctive of the prehistoric culture of India that they might as well have been found at Harappa or Mohenjo-daro.

Trench B.

The adjoining Trench B measures 33 feet from north to south by 14 feet wide, and was excavated to a depth of 12 feet only. Along its eastern edge is a piece of indifferent walling 5 feet 9 inches thick, made of small brickbats and a few half bricks. From the surface it goes down to a depth of 5 feet. A little to its south was recovered a filling of sun-dried bricks, and to the north a large number of brickbats which came within 3 feet of the surface. In this stratum were also found a broken triangular terra-cotta cake (B 2), fragment of the rounded shoulder of a buff coloured painted vase showing plant motif (B 3, Plate XV, 18) the stem of a small standard dish (B 4), and the lower part of what appears to have been a bi-convex vase (B 5, Plate XIII, 6 and Plate XIV, 18) probably with a narrow mouth.

The second stratum begins at a depth of 7 feet below the surface and goes down to 9 feet. In this a wall measuring 3 feet 5 inches wide and 2 feet high made mostly of whole bricks, measuring 11·5×5·5×2·5 inches was brought to light.

Among pottery objects recovered from this stratum may be mentioned neck fragments of a medium sized vessel of black pottery (B 9) and of a long necked vase (B 11, Plate XIII, 10), bottom of a flat based, long oval vase (B 18, Plate XIII, 9) with finger striations on the inside (Plate XIV, 8), bottom of a goblet with fine red glaze (B 10), upper fragment of a painted bowl (B 20, Plate XV, 1), a thick piece with creamy slip painted over with chocolate[1] coloured chequer (B 7, Plate XV, 8), fragments of two dishes[2] (B 13, Plate XIII, 16) of perforated cylindrical heaters (B 17, Plate XIII, 5), six triangular cakes (*e.g.*, B 16, Plate XIII, 31) and a sling ball (B 24, Plate XIII, 34). In addition to these were found a fragment of a *sankh* bangle (B 25, Plate XIII, 35), parts of the outer shell and core of *sankh*, a fragmentary scallop shell and small bits of green, grey and yellow coloured cherts (B 27, 28 and 79, Plate XIII, 39-41).

Trench C.

The third trench was sunk in plot No. 26 some two hundred yards south-east of the village. It is orientated from north-west-north to south-east-south and measures 24 feet long by 10 feet wide. This part was selected as it was strewn over with countless potsherds many of which were painted and of striking

[1] This is the only sherd on which the painting is done in chocolate in place of the usual black.

[2] Only one of these is illustrated.

shapes. But for a few brickbats at a depth of 8 feet below surface this trench proved barren of structural remains. Traces of three strata, more or less distinct were recovered in it. The first goes down to 3 feet, the second or middle one lying between 4 and 5 feet below surface is clearly demarcated from the upper and lower strata by a foot of clean earth, potsherds, ashes, etc., and consists of *débris* of occupation such as charcoal and bones. From 6 feet onwards can be recognised the third stratum, which still continued at 12 feet 6 inches below surface when excavation was discontinued.

Before proceeding to describe some of the finds from this trench, I shall make a few observations regarding the colour, slips, painting or other decoration on pottery which was found in abundance. It has a large range from exceptionally fine and delicate vases to strong and substantial wares, which also include several coarse vessels of special composition[1] (Plate XIII, 1-3). With but a few exceptions all the pottery is, however, well burnt.

The colour of pottery varies from salmon to red, but occasionally it is also buff or cream. The slip or wash applied most is red or dark red, but white slip is also found either alone or side by side with the red one. Pottery of superior make, *e.g.*, the pink carinated vases (Plate XIII, 12 and Plate XV, 4, 6, 9 and 11) which appear to have been popular, goblets (*e.g.* Plate XIII, 15), standard (Plate XIII, 22) or other dishes (*e.g.* Plate XIII, 18), saucers (Plate XIII, 19 and Plate XV, 16), narrow mouthed vases (Plate XIII, 7 and 8), etc., generally have on them a bright red glaze with or without any designs, but where the latter occur the painting, as on common wares, is almost invariably in black. Decoration on painted pottery consists of rows of dots (Plate XV, 1 and 2), one or more bands or wavy lines[2] (Plate XV, 3-5), concentric circles with hatched lines between (Plate XV, 7) chevrons (which are more or less universal), loops (Plate XV, 13-14), chain (Plate XV, 15), chequers in rectangular, square or rhomboid patterns[3] (Plate XV, 8-12), comb[4] (Plate XV, 16 and 17), tree[5] (Plate XV, 18) and even realistic forms of deer[6] (Plate XV, 19 and 20). Unpainted wares are also decorated. For instance, the coarse grained thickware bowls and the open-mouthed handled jar illustrated in Plate XIII, 1-3 which are partially restored in Plate XIV, 2, 4 and 5 show round the neck in one case a broad wavy band incised directly on the jar, while in the other two, merely the band or bands in relief are closely pricked or cut. The thickware bowl in Plate XIII, 4 (see also

[1] The clay of which they are made appears to contain some sand, fine concretions of broken bricks and chopped straw which have resulted in making their surface perceptibly coarse.

[2] These are quite common on the pottery from Harappa Cemetery H and are also illustrated by Sir Aurel Stein from Shahi-Tump in *Arch. Mem.* No. 43, Pl. XII, Sh. T. 10, 15 and Sh. T. v. 2, and from Zik in Kolwa Pl. XXI, Zik 2, in the same memoir, and from Sur-Jangal in *Arch. Mem.* No. 37, Pl. XX, S. J. iii. 3 and 4 and Pl. XXI, S. J. vi. 11.

[3] For similar patterns on painted pottery from Amri and Tharro Hill cf. *Arch. Mem.* No. 48, Pl. XVIII, 15, 30, 32 and 34.

[4] Cf. *Mohenjo-daro and the Indus Civilization* (hereafter referred to as *M. I. C.*), Pl. XCIII, 75, etc., also *Arch. Mem.* No. 43, Pl. XXIX, Mehi III.1.3 and Mehi III.2.5.

[5] *M. I. C.*, Pl. LXXXVIII, 13.

[6] Somewhat similar representations are also found in Kolwa sites cf. *Arch. Mem.* No. 43, Pl. XX, Thal 4, and Pl. XXI, Kul. 1, iv. 3 and 4.

Plate XIV, 1) is adorned only with a broad collar to relieve its plainness and with a similar object the stems of standard cups in Plate XIII, 25 and 26 (see also Plate XIV, 15 and 16) are fluted.

The principal antiquities from Trench C were :—

1. Broad based, narrow mouthed squat vase with concave body (Plate XIII, 7). Restored (Plate XIV, 13) on the analogy of a similar vase from Harappa. No. C-13, Ht. 1·5 inch, depth 2 feet b. s., Stratum I.
2. Long necked narrow mouthed bi-convex vase painted with bands (Plate XIII, 8 and Plate XIV, 14). No. C 10, Ht. 2·7 inches, diam. 2·5 inches, Mouth opening 0·2 inch, depth 1 foot 6 inches b. s., Stratum I.
3. Open mouthed, ring-based carinated vase with bright red glaze both inside and out. Damaged (Plate XIII, 12 and Plate XIV, 12). No. C 15, Ht. 3 inches, diam. 3·8 inches, depth 3 feet b. s., Stratum I. This shape appears to have been very popular, its ware is delicate and usually well finished. Nos. 4, 6, 9 and 11 in Plate XV are painted fragments of similar vases which are also found in Cemetery H at Harappa.
4. Lower part of a goblet with painted base (Plate XIII, 13 and Plate XIV, 9). No. C 11, depth 1 foot 6 inches b. s., Stratum I.
5. Fragment similar to No. 4 but with broader base (Plate XIII, 14 and Plate XIV, 10). No. C 12, depth 1 foot 6 inches b. s., Stratum I.
6. Bottom of an oval goblet with fine red glaze (Plate XIII, 15 and Plate XIV, 11). No. C 11, depth 1 foot 6 inches b. s., Stratum I.
7. Fragments of red washed or glazed dishes of various shapes (Plate XIII, 17-21). Restorations in Plate XIV, 19-21. Nos. C 20 and C 22, depth 4 to 5 feet b. s., Stratum II.
8. Fragments of standard dishes and cups with stems of different shapes (Plate XIII, 22-26). Restorations in Plate XIV, 6, 7, 15 and 16. Nos. 22 and 23 in Plate XIII were recovered from Stratum I; 24 and 26 from Stratum II and 48 from Stratum III.
9. *Chiragh* (lamp) with pointed mouth and anti-splash, horizontal lip projecting inside (Plate XIII, 27*a*). No. C 40, Ht. 1·5 inch, diam. 5·4 inches, depth 4 feet b. s., Stratum II.
10. Hemispherical *chiragh* (Plate XIII, 27). No. C 39, Ht. 1·3 inch, diam. 3·5 inches, depth 4 feet b. s., Stratum II.
11. Rough ball (Plate XIII, 33). No. C 45, diam. 2 inches, depth 4 feet b. s., Stratum II.
12. Hind parts of bulls (Plate XIII, 29 and 30). No. C 9 was found from surface and No. C 44 in Stratum II.
13. Biconical bead of *sankh* (Plate XIII, 36). No. C 52, from surface.
14. Pear-shaped bead of grey stone (Plate XIII, 38). No. C 49, Ht. 1·1 inch, diam. 1·4 inch, depth 8 feet b. s., Stratum III.

Nothing has been found in the trenches described above which may point to a late or historical period. On the other hand, numerous potsherds recovered

from them, or those scattered over the surface round Trench C definitely belong to the category of the Indus red-and-black ware with strikingly common shapes and painted motifs. Among them may be mentioned numerous triangular terracotta cakes more or less rounded at the ends, fragments of perforated heaters, of oval and long vases, of goblets with pointed bases, of delicate and exquisitely finished oval goblets, of a variety of dishes with or without stands, narrow mouthed vases, animal toys, balls, fragments of *sankh* bangles, a biconical bead also of *sankh*, a thin tubular bead of faience, pieces of chert and even bricks of an identical size. Despite these, however, the highly developed shapes, delicate fabric and exquisite finish of open mouthed carinated vases, goblets, certain dishes with or without stands and realistic paintings (Plate XV, 19 and 20) all representing the acme of the potter's art point to a phase which must undoubtedly be later than the Early or Intermediate Periods of Mohenjo-daro or Harappa. Provisionally it may be taken to correspond with the Late Period of the Indus Valley sites or perhaps intercalated between that and the date of Cemetery H at Harappa.

Unfortunately, the finds recovered from the above trial trenches do not promise to repay large-scale excavation of the site. A vast amount of *débris* over large areas will have to be shifted before it may be possible to come upon any remains that may be worth excavating. But the mere fact that the Indus (which may now be termed Proto-Indian) Culture is by this discovery pushed so far south-east as Kathiawar is a matter of great importance to the student of pre-history in India.

I must here gratefully acknowledge the courtesy of Shri Thakore Sahib of Limbdi who was kind enough to provide all facilities for our stay and to make arrangements for labour etc. for the work.

EXCAVATIONS AT NALANDA.

By Mr. G. C. Chandra.

During the year, the excavation of Monastery No. 11 at Nalanda was completed and another monastery (No. 12) situated further north was discovered. Besides this, *débris* in front of monasteries 7, 8, 9, 10 and 11 and from passages between monasteries 9 and 10, and 10 and 11 was cleared, as well as from the temple at Site No. 2 and Chaitya Site No. 12.

Monastery No. 11 which measures about 212 feet in length and 176 feet in breadth, is, more or less, identical in ground plan with other monasteries brought to light in previous years. As in the other monasteries at Nalanda, the main entrance in the centre of the portico of this monastery faces west. The broken pieces of stone lintels lying *in situ* at the entrance prove the existence of a stone door-way. Besides the stone pillars of the verandah exposed last year, others have been found at regular intervals still standing fixed in concrete on their stone bases. The contour of the mound before excavation (Plate XVI, *a*) shows a long ridge on the south, which covered the better preserved part of the monastery, while the rest had been levelled to the ground. Excavation has revealed almost a complete row of pillars on the south side and on the south half of the east and

west sides (Plate XVI, *b*). Layers of charcoal and pieces of charred wooden beams have been noticed on the door-sills of almost every cell of this monastery, which strengthens the conclusion that the monasteries at Nalanda were devastated by a great fire. The height of the verandah roof can be easily ascertained from the traces of a few beam holes found in the wall at the south-west corner of the monastery. The courtyard of this monastery is drained in the same way as that of Monastery No. 10, but there is no well in this building. The northern half of this monastery has suffered considerable damage during the period the area was under cultivation before being acquired by the Archæological Department. The foundations of monasteries 10 and 11 were examined, with interesting results. In the former, alternate layers of sand and bricks were used in the foundation, while in the latter a thick layer of sand packing, about 3 to 5 feet in thickness, was found underlying the brick masonry in the foundation. This method of construction in the foundation was possibly adopted with a view to counteract the effects of earthquakes on the superstructure, if this area was then also liable to violent seismic disturbances as at present. In some places the sand layers were found to have left their original places owing to the superincumbent pressure of the structure. Unlike other monasteries, this monastery (No. 11) does not seem to have undergone reconstruction, and only one period of occupation is evident. Another monastery (No. 12) has been discovered by the side of Monastery No. 11 and it is almost certain that the long row of monasteries extended further northwards to the modern village of Bargaon and future excavation alone can determine the extent of the entire monastic establishment at Nalanda.

The passages between monasteries 9 and 10, and 10 and 11 which were filled up with earth and *débris* were cleared during the year. No traces of concrete or brick floor were found in any of the passages, but at the west end of the passages, was found a wall not exactly in alignment with the west verandah of the buildings. These walls may have served to connect the inner verandahs of the two monasteries.

Immediately to the east of what looks like a bath at the south-east corner outside Monastery No. 10, the remains of a long wall of a structure probably an outhouse, with two doors on the east side, were unearthed.

At site No. 2, after the removal of stone blocks and *débris* from the *Pradakshinā* passage of the temple, operations were continued on the shrine itself which brought to light the outlines of the *garbhagriha*. The plan of the *antarāla*, the *mandapa* and the porch has yet to be fully examined. It now appears probable that there was a temple of the late Gupta period, of which the materials were utilised subsequently in erecting the sculptured plinth of Temple No. 2.

A portion of the *débris* and spoil earth was removed from the north, south and west sides of Chaitya No. 12. On the north *débris* was removed from both sides of the long storm water drain recently provided. On the south the exterior wall of an earlier shrine was found below the later shrine containing the colossal stucco image of Buddha seated in *Bhumisparśamudrā*. The later wall, which is elaborately carved with pilasters, was traced towards the west for about 20

yards, where it takes a turn towards the south. Below this wall is the plinth of another earlier building. Another wall running west for a few yards before taking a turn towards the north seems to have been the compound wall enclosing the outer *Pradakshinā* path around the main chaitya, from the walls of which it stands about 20 to 25 feet away (Plate XVI, *c*, *d*).

Altogether 92 objects were found in course of excavation (and added to the Nalanda Museum collection) of which 87 were discovered at Monastery No. 11. Among the more interesting of the bronze images found mention may be made of one image of Māyā Devi standing under an Asoka tree in the Lumbini garden with the newly born babe Gautam Buddha (Plate XVII, *f*), also one of Nun Somā standing on a pedestal bedecked with Vajras and reclining elephants at the four corners and holding with both hands a long branch of a tree (Plate XVII, *e*) and lastly an image of Padmapāṇi seated in *Varada mudrā* on a pedestal with attendants including Hārīti holding a child. Another interesting find was a miniature Bronze Stupa (ht. 3½") provided with a flight of steps on all the four sides of the platform which contains holes perhaps indicating the existence of four subsidiary stupas at the corners.

A composite image of Buddha seated in *Bhumisparśamudrā* (ht. 5½") with the head, halo and pedestal made of bronze and the body in carnelian (Plate XVII, *g*) requires to be specially noticed. Evidence of the existence of a metal foundry where bronze was cast has been found in the shape of a smelting pot. Four stone images of Buddha seated in *Bhumisparśamudrā* in various stages of finish were found.

Of the inscribed clay sealings and plaques, some bear personal names such as Bodhimitra and Nāgasena while others refer to the venerable community of monks at the great Vihara of Nalanda and still others bear the Mahāyāna Buddhist creed. These clay sealings bear on the back impressions of palm-leaf fibre and linen tapes or strings as they were affixed to palm leaf documents, strung together (Plate XVII, *d*).

Among other mentionable finds are some terra-cotta plaques decorated with human and animal figures (Plate XVII, *b*), iron objects such as nails, straps, etc. and pottery of different sizes and types (Plate XVII, *c*).

EXPLORATION IN BENGAL.

By Mr. N. G. Majumdar.

Mahāsthān, the ancient capital of Puṇḍravardhana, in Bogra District and its neighbourhood are full of ancient mounds, most of which remain unexcavated. Attempts are therefore being made to examine these year by year so that it may be possible to have a fair idea of the antiquity of this place. During the year under review, excavations were carried on at Meḍh, or 'Lakhindarer Meḍh', an isolated mound about 43 feet high near the village of Gokul, about a mile to the south of the ruins of Mahāsthāngarh. It is flat on the top where it roughly measures 225′ from east to west and 139′ from north to south. The western face of the mound has a gradual slope in contrast to the other sides, which are

somewhat steep, and it is possible that the approach to the building on the top lay through a stairway on the west. A trench 100′ in length by 25′ in breadth was driven into this part of the mound, starting from the top. When the incrustation of surface débris was removed, a group of small brick-built chambers, ranging themselves in parallel rows and rising in tiers or terraces, came into view, together with a huge and massive wall measuring 6′ 9″ in width, running north to south. To the west of this wall was a small stairway, flanked on either side by rows of chambers 13′ to 14′ square. After excavation, the mound assumed the appearance of a honeycomb on account of the chambers dug out at different levels (Plate XVIII, *a*). Similar chambers, both large and small, were also laid bare on the western and southern slopes and at the base of the mound, and the big wall just mentioned was encountered also on the south. Altogether five tiers were exposed along the inner side of this wall, and it was clear that although some of the chambers, specially the bigger ones, might possibly have been used for residential purposes, the smaller chambers at any rate could not certainly have been so utilised, and indeed in none of them was there any sign of a doorway. The faces of most of the walls appear to have been left unfinished and rough, which indicates that the walls were not intended to be exposed to view. The quantity of hard, beaten earth that was cleared from the smaller chambers also points to the conclusion that the interior of these compartments was filled in in order to provide a solid foundation to the structures that must have once stood on the top of the mound. This device has been adopted also elsewhere, as for instance at the Gobind Bhita Temple at Mahasthan, but the way in which it was employed by the architect at Medh is remarkable. It must have added not only to the stability but also to the grandeur of the monument, which appears to have been quite a stupendous edifice. Each of the tiers is 5′ to 7′ in width and the walls of some of the pits go down to an abnormal depth, reaching the present ground level. The structure crowning the mound was a shrine erected at a height of about 40′. In plan it is polygonal, measuring 69′ across, at the centre of which there was a shaft 12′ 6″ square, similar to what has been found at the top of the main temple at Paharpur. For want of time the clearance of the shaft could not be undertaken this year. A little to the west of the shrine were discovered remains of a later platform, at present measuring about 30′ in length by 24′ in breadth, the significance of which was not clear.

Although from the point of view of architecture this monument is endowed with more than ordinary interest, no antiquity of particular importance was recovered in the excavations, apparently because the structures above the plinth had already disappeared. The date and character of the monument, as also its connection with Buddhism or Brahmanism, could not be determined with any degree of certainty. Of the few antiquities registered from the trenches, mention may be made of some stray fragments of terra-cotta figures besides a few plaques and ornamental bricks (Plate XVIII, 2-13) none of which, however, was found *in situ*. A fragment, that must have belonged to a terra-cotta figure of Vishṇu, represents a hand carrying the discus (*chakra*), a characteristic emblem of this deity (Plate XVIII). Among the plaques, one shows a squatting figure, and some of the

ornamental bricks bear floral patterns and a motif simulating the window (Plate XVIII, 13). The nature and style of the decoration suggest that the monument must be ascribed to the late Gupta period. Nothing further can be said unless and until excavations on an extended scale have been carried out at the site.

Excavations were also conducted during the year at the mound of BAIGRĀM which is situated about two miles to the north-east of Hili station in the Dinajpur District, on the main line of the Eastern Bengal Railway. The mound, which is locally known as *Siver maṇḍap*, is only about 9′ high and measures 60′ in length by 56′ in breadth on the surface. It was overgrown with huge trees, and remains of old walls peeping out at places suggested that the different parts of a brick structure lay very near the surface. The importance of the site is due to the discovery of a copperplate bearing the date 128 of the Gupta era *i.e.*, 447-48 A.D., which was brought to light during the re-excavation of a silted up tank adjoining the eastern edge of the mound. The copperplate refers to a village 'Vāyīgrāma', identical with the present village Baigrām, where a temple was built by a person named Śivanandin. The excavations have revealed the plan of a temple, which in all likelihood is identical with the one mentioned in the copperplate.

The temple originally consisted of a *garbhagriha* about 10′ square (Plate XIX, *c*) with a platform in the centre probably for a *liṅga* or some other cult object which, however, no longer exists. Just at the centre of the platform a mass of concrete was found which had the semblance of a *liṅga*, although this could have by itself hardly served the purpose of worship. Access to the *garbhagriha* was obtained from the west by a doorway 5′ 6″ wide, which communicated with a flight of stairs (Plate XIX, *d*). The *garbhagriha* had the usual circumambulatory passage enclosed by a wall, and adjoining this wall on all four sides was an open terrace 14′ 10″ wide made of beaten earth and brick filling, supported at the outer edge by another wall 3′ 6″ in width (Plate XIX, *b*). This latter wall has been exposed on the north, south and east, while on the west there are certain traces showing that it probably stood there as well.

At a subsequent date the temple as well as its adjuncts seem to have undergone additions and alterations. The ground level of the temple was raised by about 3′, and the staircase was covered up with débris, evidently to provide for a *maṇḍapa* in front of the temple. The north and south walls of the inner quadrangle were extended westward upto a length of 24′ 6″, where a new cross wall was added. Access to the temple was still maintained from the west, probably by means of a new staircase, of which some traces have been brought to light. Quite in keeping with this enlarged plan of the temple and the inner quadrangle, the open terrace together with its outer wall was also extended, towards the west, the total length amounting to about 128′. The terrace wall extension shows three rectangular projections at the north-west, west, and south-west, but there are no such projections on the east. The plan of the western portion of the area could not be made out in detail during the year under report. Here also, as at Meḍh, no antiquities of any special interest were found.

The village of MAHĀNĀD in the Hooghly District has from time to time yielded gold coins of the Kushān and Gupta dynasties, and its antiquity is proved also by the numerous mounds situated in this village and its neighbourhood, as well as by fragments of stone sculptures that lie scattered all over the locality. During the year an attempt was made to examine this site in detail and an exploratory trench was sunk for the purpose at a place called Jāt Talā within the village. This trench revealed a number of brick walls at a depth of about 6′ below surface. One of these, which is as wide as 5′ 4″, must have formed an adjunct of an important building. Quite close to these walls was discovered a ring well 2′ 9″ in diameter. The only mentionable finds from the trench were pottery and a stucco head showing the style of the 5th-6th century A.D. A number of antiquities were collected also from surface exploration and brought to the Indian Museum, Calcutta, two of which deserve special mention. One is a terra-cotta matrix showing a standing male figure in a graceful pose (ht. 4½″). On grounds of style it has to be assigned to the Gupta period. The other object is a fragmentary figure in black stone, representing a female standing under a tree, probably Māyādevī (ht. 9½″), collected from Sudarśan, a village near Mahānād, which is also full of old remains.

An interesting brick temple was discovered at Deuliyā, near Memari Railway station in Burdwan District (Plate XIX, *a*). It has a curvilinear *śikhara* divided into ridges, and a corbelled door-way. The *śikhara* was probably surmounted by an *āmalaka* of which traces remain. It is profusely decorated with scroll-work and 'chaitya-window' pattern, the bricks being overlaid with plaster. The lower portion of the temple, up to the top of the corbelled opening, remains, however, quite plain. The temple recalls in many respects the Siddhesvar temple at Bahulara in the Bankura District and perhaps belongs to the same age.

EXCAVATIONS IN MADRAS PRESIDENCY.

By Mr. H. H. Khan.

No excavations of any importance were carried out during the year, but a preliminary survey of ancient Buddhist sites at Yellamanchilli, Sarvasiddhi and Rayavaram, Vizagapatam District and Korukonda near Rajahmundry, East Godavari District of Stone Circles and Cromlechs in the Coimbatore District was carried out.

Yellamanchilli is the headquarters of the Taluk of the same name. Overlooking the place rises a hill called *Nuki Papa*, on the top of which extensive brick ruins and a stone doorway are pointed out as the remains of a fortified palace of the Golla Kings. Of the two temples on the slopes of *Nuki Papa's* hill, the one on the north partly cut into the rock and partly built on an elevated platform is dedicated to Venugopālaswāmi; while that on the south is sacred to the village deity Ramachandramma. The latter is believed to appear in the form of flashes of lightning in the sky, when a buffalo is sacrificed to her by the worshippers

at her annual festival. Eight miles south-west of Yellamanchilli is Rayavaram, said to be named after King Krishna-deva Raya of Vijayanagar, who is stated to have halted here during his expedition against Orissa about 1515 and to have recorded his expedition on a big slab of stone, which still lies in the market place. About two miles from Rayavaram lies Sarvasiddhi which, according to tradition, was one of the seats of Golla Kings who ruled in these parts. Bricks of large dimensions used in ancient buildings are found in the surrounding fields. Near Korukonda, 11 miles north-north-west of Rajahmundry stands a hill containing 10 rock-cut caves, in which the Pandavas are supposed to have lived during their exile. The caves are small, plain and rectangular excavations, barely 10 feet in length, breadth or height, most of them having one central door-opening flanked by a window on either side. In some caves, there are also traces of a rock-cut verandah in front, with the roof supported on tapering octagonal pillars. Except 3 modern stone images known as Kunti, Lakshmi and Krishna in one of the caves and six modern stone images locally known as the Five Pandavas and Draupadi in other, there are no other sculptural remains. A rock-cut reservoir about 15′ deep and 5′ square at the mouth provided the supply of water to the occupants of the caves. The level top of the hill must also have been occupied by the Buddhists, as is clear from the extensive brick ruins.

A few Satī stones and stone circles at Kalcadambur in Gobichettipalaiyam and small cromlechs at Tellanji in Udumalpet both in the Coimbatore District were visited during the year. At Sircarperiapalaiyam, also in the Coimbatore District, a stone image of Lakshmī was unearthed in the compound of the Sugrīveśvara temple. It is a well carved figure representative of Pallava Art and is at present preserved on the spot.

At Nāgārjunakonda in Guntur District, a few small earthen pots and bowls and sculptural fragments were unearthed while exposing a portion of the basement of the Monastery on the Nallarallabodu hillock; but these are of secondary importance.

As a result of the complete destruction of prickly pear by Cochineal insects at Hampi during the year, many remains scattered all over the site have been exposed to view and a number of valuable stone objects, including images of Gods and Goddesses, beautifully carved and sculptured fragments, and a huge column of victory, now in several pieces all belonging to the Vijayanagar period were recovered. Nearly 150 of these objects were removed and preserved temporarily in the Zanana Enclosure (Plate IV, 6). It seems most desirable that these and other relics of antiquity should be housed in a small local Museum at Hampi. An interesting discovery at Hampi was that of a finely dressed lime-stone slab of a greenish tint measuring 2′ 3″ in width (circular basin), 2′ 4″ in length and about 6″ in thickness with a circular service hole 4¾″ in diameter, which must have been used in the Royal privies, as its find between the Throne Platform and Audience Hall indicates. The stone which is quite intact except for the back piece is believed to be unique in South India, the only similar piece so far known being from an Anurādhapura Monastery.

Interesting Pre-historic remains were discovered in the garden of a private bungalow on Hall's Road at Kilpauk in Madras, consisting of burial urns, pots and a few other objects. The existence of a Pre-historic cemetery at this site has been known for the last about 12 years to the owner, Mr. E. R. Prudhomme who has unearthed a small sarcophagus and a few small earthen vessels and bricks of large dimensions (Plate XX, *c*). The latter also appears to have been used in the construction of an ancient well in the compound. Some of these finds are still preserved in Mr. Prudhomme's bungalow. This year, the authorities of the Government Museum, Madras, arranged to carry out some further digging with the permission of the owner. The operations were confined to a spot about 36 feet in length by 20 feet in width and were carried to a depth of 7 feet and the finds were made at depths between 3 and 7 feet, in the bed of the river sand. The antiquities brought to light consisted of a few large urns (Plate XX, *g*), a number of pottery vessels of a black polished ware (Plate XX, *b* and *c*), a highly polished black pottery figurine representing a bird, a small iron hoeblade of a very primitive type with a curved cutting edge and a narrow butt, an iron rod about 6 inches long, broken in two (Plate XX, *a*), besides other small objects. A sarcophagus of the Adichanallur type about 6 feet long, standing on six pairs of short legs was also unearthed (Plate XX, *e*) but was found to have been greatly damaged by the roots of a mango tree. Some fragments of pottery, and a bit of human tibia bone were found in it. All these finds have been preserved in the Madras Museum.

EXPLORATION IN BURMA.

By U Mya.

Old Prome.—No excavation was undertaken in Burma during the year under report, but a sum of Rs. 500 was expended on the preservation of some of the exposed excavations. Out of this amount a sum of Rs. 112-8 was expended at Hmawza (Old Prome) on clearing jungle around the old walls of Peikthano-myo (Vishnu City) and the East *Pyudaik* (Pyu Settlement), which are situated a few miles outside the walls of Old Prome, the former to the south, and the latter to the south-east. The Peikthano-myo consists of a fortified area surrounded by a moat in which there are traces of an enceinte. A few hundred yards to its north is the site known as Peikthano-mibaya-thingyaing (the Grave of the Peikthano Queen). The Pyudaik has two enclosure walls with traces of a moat between.

Inscribed Slab from Hmawza.—While removing the rubbish and earth from one of the three stupas south of the Bawbawgyi pagoda an inscribed stone slab measuring nearly 4′ 8″ in height and 1′ 6″ in breadth was found. The upper part of this stone, semicircular in shape, shows an arched niche containing the figure of Buddha seated cross-legged in the *dhyānamudrā* on a throne and flanked by two worshippers. The skull of the Buddha is in the shape of an inverted bowl, and has a slight protuberance in the middle to mark the *ushṇīsha*. The ear-lobes are long and almost touch the shoulders. The throne of Buddha is unusual, being shaped like an hourglass, with tiers or ledges narrowing in length towards

the centre. It is provided with a back, traces of which may be noticed on each side of the Buddha and above his head, the latter in the form of an ornamental nimbus (Plate XXII, *a*). The disciples stand on raised platforms, one on each side of the Buddha with folded hands and figures bent towards the Buddha in a devotional attitude. The eyes of the disciples and the central figure are hollow, and may have been once filled with precious stones now missing. A large rosette is seen in the centre of the arched niche and roughly shaped lotus-leaves ending in volutes which spring from the top of the round pillars on either side. Below the pillars are ornamented parapet walls, the whole being apparently the miniature replica of an existing shrine.

The inscription below is bilingual, being partly in Pyu written in South Indian characters and partly in an unknown language, probably Sanskrit, in an apparently older script. There are eight lines of each writing, a line in Pyu being followed by another in the unknown language. Except the Pyu letters with their characteristic long verticals and hookshaped medial *i* or *ī* little else can be made out. A noticeable feature of the interlinear writing in the older script is that it is made up of only a few letters, among which *ma* and *ya* predominate and each letter is repeated many times in each line. This feature is common to some of the old Pyu inscriptions already found at Hmawza and Halin. Neither the phonetic value of these letters nor the language in which they are written is known.

Myinbahu Pagoda.—While at Hmawza, I learned that a monk had found some antiquities in course of clearance of débris round the Myinbahu Pagoda there and I took the opportunity to visit that pagoda and to examine the objects found. The Myinbahu Pagoda is situated to the west of the railway station at Hmawza being built on a spur of the range of hills overlooking Old Prome. It is one of the stupas traditionally said to have been erected by King Duttabaung in the 5th century B.C. along with the Bawbawgyi, Payagyi, Payama and five other stupas at Old Prome. It is of no architectural interest whatsoever at present, as it has been renovated and modernised (like so many other Burmese Pagodas), the last repair being as late as the year 1906-07.

Terra-cotta votive tablets.—The objects found among the *débris*, which are now preserved in a temporary shed built on the platform of the pagoda, consisted principally of hundreds of terra-cotta votive tablets stamped with Buddhist effigies. Many of these tablets are in fragments and the types they represent are comparatively few, and are peculiar to Old Prome. The most important type which appears to date from the 9th-11th century A.D. is represented by small terra-cotta votive tablets about 3" in height bearing a pair of four-armed standing figures, probably Bodhisattvas. One of these wears a crown, a close-fitting jacket, the sacred thread, a scarf loosely hanging down on either side, and a *dhoti*. Of the hands, the upper right holds a fan and the upper left holds a full-blown lotus by its stalk; the lower right rests on, probably, the hilt of a sword, and the lower left holds the lower part of the lotus-stalk, seen above (Plate XXII, *b*). The other image is similarly dressed but does not wear a crown. Its hair is arranged in the form of *Jaṭā-makuṭa* and the sacred thread across the

breast is more ornamental, being beaded along the centre. The hands are in similar attitude but the attributes held in them are different. The upper right hand holds a club, and the lower the neck of a pitcher, resting on a double lotus. The two left hands hold a lotus-bud by its long stalk (Plate XXII, *c*).

There can be little doubt that these figures were varieties of Mañjuśrī and Padmapāṇi Avalokiteśvara, but as the cult of Bodhisattvas is totally unknown to the present-day monks, the monk in charge of the repairs to the pagoda considered both these figures as representing Hindu deities. The popularity of the cult of Bodhisattvas in ancient Burma is attested by several finds from Old Prome and from the paintings on the walls of some of the old monuments at Pagan.

To the same period may be attributed another class of terra-cotta votive tablets found at the same pagoda, which bear an image of Buddha seated cross-legged on a double lotus in the 'adamantine pose' (*vajra-paryankamudrā*). A nimbus with a border formed of two thick lines is noticeable round the head. The Buddha is flanked on either side by five small knobs arranged one above the other, which may be little stupas, symbolising the ten forces (*daśabala*) of the Buddha. Beyond this, and separated by a border of double lines and flamboyant ornaments, there is a line of writing containing the Buddhist creed in Nāgarī characters of the 9th-10th century A.D. Most of those tablets are either broken or partly mutilated and the Buddhist creed is only partially preserved in each (Plate XXII, *d*).

Among the other tablets from the same site, mention may be made of two fragments bearing on the reverse face short legends in Pyu. The letters are fairly distinct and legible and the legends are probably concerned with the votive offerings. Another tablet about 4 inches in diameter of which only a quadrant is preserved exhibits on both faces certain marks generally met with on old Pyu symbolical coins (Plate XXII, *e* and *f*). If complete, it would have been a valuable addition to the antiquities of Old Prome.

Bronze Buddha.—Among the other finds from the same site a small silver coin and a bronze image of seated Buddha deserve mention. The silver coin (about ½″ in diameter) is of the same type as those found at Khin-ba-kon at Hmawza in 1926-27.[1] The bronze Buddha is seated cross-legged on a throne in the *Bhūmisparśa-mudrā* in the *paryaṅkāsana* pose. The dress is marked by folds across the breast and over the left fore-arm. The back of the throne is made up of a frame work consisting of two uprights and a horizontal piece, displaying an ornamental design. A nimbus, of which only the lower half remains, is noticeable round the head of the Buddha. But, what makes the figure of special interest is a line of inscription incised on the front face of the middle portion of the throne. It contains the first five letters of the Buddhist creed in Pali in North Indian characters of the Gupta period (Plate XXII, *i*).

Tawyagyaung Stupa, Myinpagan.—The encased stupa standing on a large mound close to the river bank north of Tawyagyaung Monastery at Myinpagan is traditionally ascribed to Sawlu, king of Pagan (1077-1084 A.D.), and son and

[1] Archæological Survey of India Annual Report, 1926-27, Plate XLII, figs. *e* and *f*.

successor of the famous Anoratha (1044-1077 A.D.). This is the second monument in Sawlu's name, the other being the Patothamya near the Thatbyinnyu temple, Pagan, whereas, according to our chroniclers, there was no monument, at least at Pagan, associated with his name. The encased stupa is a rare specimen of its type, and the outer covering, of which only a portion now remains, has a large and elongated bell-shaped dome of nearly the same shape as that of the Lokananda pagoda at Thiyipyitsaya or the Myinkaba pagoda at Myinpagan, both of which are said to have been built by Anoratha. A feature in the construction of this stupa was that the outer covering was built in the form of a well up to a certain height and strengthened by wedge-shaped buttresses at intervals, abutting on to the inner stupa.

Somingyi monastery.—The brick monastery south of the Somingyi Pagoda at Myinpagan was once in the occupation of monks known as the *Aries*. The small cells are arranged on two sides of a rectangular enclosure with a chapel and few more cells on another side.

Inscribed stones at Pagan and Ava.—An inscribed stone slab was found buried in the ground by the side of a ruined stupa situated near the southernmost part of Old Pagan, among a cluster of old and ruined monuments. The inscription is in old Burmese and is dated in the year 595 Sakarāj (1233-34 A.D.). It is partly damaged, a greater part of the right hand portion of the top half having disappeared, but what remains of it is still clear and can be read. It records the dedication of lands and slaves to a stupa named Ami-lup *Putho* (Stupa) and the offering of certain objects for the use of monks residing in a monastery. It has been preserved by being set up on a brick pedestal close to the site where it was found. It is considered that by doing so, the local interest in it and the monuments around it will be kept alive, much of which would be lost if the stone were removed to a Museum. Unfortunately the inscribed surface of the slab at Ava has peeled off in many places owing perhaps to the jungle fires that broke out around it from time to time. If complete, it would have been one of the most interesting lithic records now existing in Burma, containing, as it does, a very elaborate account of the ceremonial attending the building of a palace at Ava in 1510 A.D. by Shwenankyawshin Narapati (1502-1527). It is the second record of its kind, the first being that of King Kyanzittha of Pagan (1084-1112 A.D.) in Mon found near the Tharaba Gate, and now preserved in the Museum at Pagan.[1] Even in the damaged state of the Ava stone, one may still read many illuminating passages here and there, which afford a glimpse into the customs and beliefs of the Burmese people, from the kings downwards, in the 15th-16th century A.D.[2]

It records how the wooden pillars to be used in the construction of the palace were arranged at the north-east corner of the site, with the upper end of

[1] "Epigraphia Birmanica", Vol. III, Part I, pp. 1-68.

[2] This inscription was discovered many years ago. For a decipherment of it, see the "Inscriptions of Pagan, Pinya and Ava deciphered from the old inscriptions found among the papers of the late Dr. E. Forchhammer", pp. 363-372. It was left out in U Tun Nyein's translation in English of those inscriptions with the following remarks, "This inscription contains the architectural details of the Palace of Ava, but it is in such a fragmentary state of preservation that no connected translation of it can be made". *Vide* "Inscriptions of Pagan, Pinya and Ava—Translation with notes", p. 165.

each pointed towards the east; how they were washed with water brought in vessels of earth, brass, silver and gold from a place where rivers met; how the tree spirit was worshipped; and the aid of Parameśvara, lord of all beings, was invoked. Officers of all classes, monks and astrologers, young damsels, Brahmans, carpenters and bankers took part in the ceremonies.

Other deities were also worshipped on those occasions; *e.g.*, Sakra with his wife Sujātā riding on the elephant Airāvata; the Sun-God clad in red with a red umbrella and red flag and decorated with red flowers, riding on a *suparna* borne on a *nāga*; the silver image of the Moon-God dressed in white with a white umbrella and flags and decorated with white flowers; the image of Rāhu black in colour and wearing a black garment, carved out of a piece of pine-wood. There were other planetary gods besides, and they were fittingly installed and worshipped, each in a pandal by itself. The gods Agni, Yama, Varuṇa, Brahmā and others were also worshipped at the same time. Brahmā had four faces and four arms, the objects held in his hands being a conch, a sword, a vessel full of water, and a water cup. Altogether the gods were twenty in number. A notice was also sent round the city by beat of gong that the people living within the city and outside should propitiate their own *nats* or guardian spirits, each after the manner of their own class, while the above-mentioned ceremonies were in progress. Kyanzittha's Mon inscription referred to above does not seem to specify the names of these principal deities although they were actually worshipped at the time; but a detailed account, in manuscript, of the ceremonies performed at the building of the Mandalay Palace in 1856-57 is more comprehensive, and gives all the names of deities including the well-known and popular 37 *nats*[1] that were worshipped then.

Another feature of outstanding interest in the Ava inscription is the record made in it of the Pyus. It is said that the daughters of Brahmans and Pyus[2] were employed in spinning thread probably for use as charmed thread. This clearly shows that the Pyus were still living at the beginning of the 16th century A.D. They were probably living for many years after, and their extinction as a race must have been an event of comparatively recent date.

The stone now stands on the platform of the Hti-hlaing-Shin pagoda. Its original site is not known, but it is said that during the time of the supremacy of the Shans at Ava after the death of Narapati, the founder of that inscription, it was removed from its original site and dedicated to the Hti-hlaing-Shin pagoda on the platform of which it now stands. By this act it was thought that the rightful succession of Burmese monarchy at Ava had been ended. The Shans were driven off from Ava by Bayin-naung, king of Taungoo, in 1555, and when the Lord of Nyaung-yan, a son of Bayin-naung, who was left in charge of Ava, contemplated consulting that inscription in connection with certain palace ceremonies to be held by him, he was strongly advised by his preceptors not to do so. The stone had been already dedicated to a pagoda, and objects pertaining

[1] For a very complete account of the 37 *nats* see Sir Richard Temple's "The Thirty-seven Nats".

[2] This word has been wrongly read as "Byū", in line 70 at page 371 of the deciphered "Inscriptions of Pagan, Pinya and Ava". I checked it with the original on the stone and found it to be written "Pyū".

to a religious monument or a sacred image could not and should not be made use of for secular purposes.

Shwezayan Pagoda, Thaton.—I visited Thaton again for a few days during the year under report, the object of my visit being the examination of the old inscriptions found within the precincts of the Shwezayan pagoda there, and the study of a few Buddha images discovered lately. The inscribed slabs are now sheltered under the roof of a small *vat* or *tazaung* within the precincts of the pagoda.

Of the Buddha images, mention may be made of two, a red sandstone image found within the compound of the Nandawkon monastery, and another in the possession of a monk of Bin-hlaing-taunggya *kyaung* or monastery, Thaton. The former was found installed in a side-niche in the outer face of the brick wall of a small building known as *Bidagat-Taik* or Library, and is probably the image referred to by Mr. F. O. Oertel[1] in these words: "In digging a well about a quarter mile from the railway station a standing image, about 3 feet high, was lately discovered 14 feet below the surface. It is very like the Jain images of Southern India, with long arms, broad shoulder, curly hair with a fillet or band on the forehead, under the left arm a book, with the fingers of the left hand on the shoulder. The lucky finder has set it up under a new shrine and the people are crowding in to worship it, as it is considered a divine manifestation of good omen". Sir Richard Temple who notices it in his "Notes on Antiquities in Ramaññadesa", remarks that it bears a striking resemblance to the Colossal Digambara Jain figures of Western India except that "it is not naked".[2] I made a fruitless search for the figure referred to by these scholars during my first visit to Thaton, but with the help of U Hla (Dhamika Mahā Upasaka Hla), a trustee of the Shwezayan pagoda, Thaton, I was able to trace the image this time.

As was already noticed by Sir Richard Temple the image under discussion is not naked, but the present dress with its folds in modern style is probably a later addition. The figure is standing on a double lotus and is 3 feet high. Both arms are inordinately long, one of the characteristics of a Mahāpurusha. The right hand is hanging down with the palm placed outwards and the fingers pointing downwards. The left arm is doubled up, and the hand, with the tips of fingers touching the shoulder, holds one end of the robe, but there are no traces of the book in the arm-pit. Below the tips of fingers of the right hand is an indistinct figure like an inverted cone, which was probably a later addition meant to keep in position the renovated fingers. The long ear-lobes touch the shoulders; the head is crowned by a double knob (which is seemingly modern), the upper one being in the shape of a lotus-bud. The broad forehead is relieved by a fillet also a later addition. The whole figure was carved in bold relief, and the top of the back slab is pointed. The flamboyant ornament round the edge of the back slab is also a later addition (Plate XXII, *h*). Even with all these repairs and renovations there can be no doubt that the figure

[1] Note on a tour in Burma in March and April 1892, p. 22.

[2] *Indian Antiquary*, Vol. XXII, 1893, p. 345.

represents a Buddha ; and from its proximity to the site where it is said to have been discovered originally, and also from its close resemblance to what has been described by Mr. Oertel and Sir Richard Temple, I am very much inclined to think that it was the same image. The head and the double lotus on which the image stands are certainly parts of the original work, dating from the 10th-13th century A.D.

The other image referred to above is a richly ornamented image of Jambupati or Buddha in regal dress (Plate XXII, *g*). It is made of iron, and stands on a throne made of the same metal, the total height including that of the throne being 2 feet 5 inches. Jambupati wears a very high and pointed crown in three sections diminishing at the top. The figure wears all ornaments including necklaces, breast-plates, armlets, bracelets, anklets and ear-ornaments. Both hands are raised in the *abhayamudrā*, and a ring may be seen on each finger. The upper robe is rich and a pair of slippers of Indian type may be noticed. The image is said to have been brought over from Inle in the Southern Shan States, and seems to be modern. Such a figure is very popular in Cambodia, Siam, and the Shan States, and a figure closely resembling the present one in style, but made of more precious materials, may be noticed in a temple at Pnom Penh in Cambodia, as is shown in Plate XXIV of "Arts et Archeologie Khmers", Tome II.

Tizaung Pagoda, Zôkthôk.—From Thaton, I proceeded *viâ* Taung-zun to Zôkthôk, a village, which is situated at a distance of about 28 miles by railway from Thaton on the Pegu-Moulmein branch and then 6 miles by road, The late Mr. Taw Sein Ko paid a visit to that village in 1891-92, and in a note prepared by him on that occasion and published in the *Indian Antiquary*, Vol. XXI—1892, p. 382, he mentioned an old stupa and sculptured wall. They are known as the Tizaung pagoda and Sindat-Myindat (Elephants and horses of war).

The Tizaung (Thi : choṅ :) pagoda (Plate XXI, *a*) has been so called because the new *hti* : or umbrella which was placed on it after its last and recent repair remained slanting (choṅ :) and could not be straightened. Since then, it has been known as the Thi : choṅ : or Tizaung (umbrella slanting) pagoda. But there are other names as well with very old legends attaching each. According to one legend long before Buddha's time, ogres lived in the country around Zôkthôk. During Buddha's sojourn at Thaton in the course of his visit to the Eastern countries (which is of course not a historical fact), two ogre chiefs came to pay him their respect. After the meeting, Buddha gave them, as a memento, a hair from his head and they built a stupa over it. Among other relics enshrined in the stupa there were also those hairs of the daughters of the two ogre chiefs, twisted into a cord. On that account, the stupa was called "Juksok" = 'hair-cord' (from Mon. "Juk=cord" and "sok=hair",) which has been corrupted into "Juksuk" in Burmese or Zôkthôk, according to a more popular mode of spelling in English. The Mon version of the story of the *thera* Gavāṁpati contains another legend stating that Buddha met these ogres in their own home on his way back from the East. At first hostile, they were subsequently subdued by the Buddha who gave them a hair for their worship,

which they enshrined in a stupa. As that stupa was built by ogres it was also known as Kyāk-klok-dak (Pagoda-Ogres-built).

The Tizaung pagoda, as it may now be seen, is a conical stupa with eight sides, built on the remains of an older monument. An outstanding feature of this monument is its solid quadrangular basement, constructed of large blocks of laterite, resting on a plinth also built of the same material (Plate XXI, *a*). The basement with the plinth below is about 14 feet in height above the surrounding level, and the plinth itself is about 3 feet high. From the style of the pilasters ornamenting the basement it is highly probable that it forms part of the original structure. There are four large and broad flights of steps now in ruins facing each cardinal point, by which access was gained to the shrine above. The walls by the side of each stairway were ornamented with laterite pilasters of two different types, alternating with one another, some of which may still be noticed on every side (Plate XXI, *b*). According to a Burmese account the heaviest of these laterite blocks would now require as many as 70 persons to place it in position. One of these pilasters consists of a plain shaft about 4 feet 6 inches in height and 2 feet 8 inches in breadth without a base, and is made up of four large blocks of laterite. It is crowned by another large block of the same breadth as the pilaster blocks below but slightly projecting beyond them and about 10 inches in height. The other pilaster is of slightly lesser dimensions and rests on a laterite pedestal about 4 inches in thickness and is surmounted by a capital with plain mouldings. These pilasters support a line of mouldings above, on which rests the superstructure. The plinth below is also decorated with plain mouldings now mostly covered up with later accretions. Among the antiquities discovered were four small votive stupas in laterite each about 4 feet in height, three at a corner within the precincts and one on the top of a mound just outside the west enclosure wall. Each of these was carved out of a single block and consists of a square basement, with sloping sides, surmounted by a conical stupa (Plate XXI, *d*). On each face of the basement a seated Buddha is carved in an arched and decorated niche, the whole being originally probably covered with plaster. It is interesting to see that the shape of these miniature stupas is octagonal in plan like the main stupa, as we now see it. On stylistic grounds those small votive stupas may be placed in the 11th-13th century A.D., but from the style of its basement, the original structure here must belong to an earlier period. Besides the votive stupas, many other laterite objects were found such as flag-poles, lamp posts, umbrellas and altars for the offerings. Some of them, especially the umbrellas and pedestals, exhibit excellent workmanship, and the designs on them are lotus-leaf and frill patterns (Plate XXI, *c* and *e*).

Sindat-Myindat, Zôkthôk.—The sculptured wall known as the *Sindat-Myindat* is situated about a mile to the south of the Tizaung pagoda. It is an isolated wall, built of large laterite blocks, the largest of which measure nearly 4′×1′ 4″×1′. It faces south, running approximately east to west and is said to have been about a mile in length, but barely 360 feet of it now remains. Traces of a gateway are seen near the eastern end and close to the western end are an old tank

and an old well, both dug in a bed of laterite. An ornamental piece of laterite, which probably forms part of a small stupa, was also found on the top of the wall at the eastern end.

The wall is nearly 7 feet 6 inches in height, and is backed on the north side by an earthen rampart which is about 20 feet broad at the base. Its prominent feature is the presence of large panels of sculptures in bold relief, showing alternately lions and elephants. Each panel is about 3 feet in height and 3 feet 7 inches in breadth, and is separated from its neighbour by a vertical piece of laterite 1 foot 4 inches in breadth, carved with a floral pattern in low relief (Plate XXI, *f* and *g*).

The wall has suffered much from the action of time and weather. It was probably plastered originally, but there now remain only rough and weather-worn blocks. The animals sculptured on these blocks are however fairly distinct as to enable one to trace their rough outline. Both the lions and the elephants are full of life and activity, and the modelling is very well done. According to a local tradition these sculptures represent a military expedition led by Kyanzittha, King of Pagan (1084-1112 A.D.), against Thaton, and the local people consider the figures of elephants and horses as forming part of Kyanzittha's army on that occasion, although the lions could hardly be explained on that supposition.

Beginning with the first panel at the western end, one may notice three weather-worn animal figures, which from the manes can be made out as lions. One of these in full profile is probably walking; while another at the back, and a third by the side of the first figure have only the head preserved. There can be no mistake about the elephants in the next panel. In other panels we notice an elephant trampling upon a lion; a tiger lying prostrate on the ground; two lions engaged in mortal combat, while a third is looking on; another struggle in which nearly half the body of a lion is over the other; and still another scene in which two lions are showing their teeth at one another, while a third stands aside in full profile.

The elephant panels generally show 2 figures one of which being the main is shown in full view, with the trunk drawn upwards or curled inwards and the other, of which only the head is depicted, is seen following behind, with its trunk extended and resting on the back of the first figure.

For a certain length of the wall, *i.e.*, about 210 feet from the western end, the principal figure in each panel faces the east, while a panel still preserved at the eastern end has the principal figure facing west. It is possible that the change in the orientation of the figures marks the spot of an original gateway. It is reported that the gateway was traceable a few years ago, but at present there is only an empty space.

As regards the age of the wall, local tradition assigns it to the XIth century A.D. or approximately the period of King Kyanzittha. The naturalistic style of the sculptures, and the column arrangement of the floral patterns carved on

the blocks separating the lion panels from the elephant panels leave little doubt as to their priority in date to similar figures in sculpture and painting at Pagan, of which the earliest goes back to the XIth century A.D. Again, if one may judge by the large-sized blocks of laterite used in the Sindat-Myindat wall, it might be as old as the basement of the Tizaung pagoda mentioned above. At Pagan, however, brick being the principal building material, laterite construction is unknown.

The Tizaung pagoda is in use as a religious monument and is in the charge of local elders. The Sindat-Myindat is ownerless. Steps have been already taken to place the latter on the list of ancient monuments to be preserved by Government under the Ancient Monuments Preservation Act, VII of 1904.

SECTION III.—EPIGRAPHY.

By Dr. N. P. Chakravarti.

Collection and decipherment of inscriptions.

During the year under review I discovered in course of my tour, a few new inscriptions and also copied a number of records which have not yet been properly edited. As a detailed consideration of all these records does not come within the scope of this report, I shall discuss here only a few of the important ones which are either new or have not yet been properly noticed in any of the archæological reports.

The earliest and most important inscription discovered during the year was the one found by me at Nagarī, the site of the ancient city of Madhyamikā, now a small village situated at a distance of about eight miles to the north of Chitorgarh in the Udaipur State. The epigraph was found on one of the huge slabs of stones of a walled enclosure now popularly known as Hāthī-bāḍā, so called because, it is believed that when Akbar came to reduce Chitorgarh and was encamped at Nagarī, he used it as a stable for his elephants. When I first detected the existence of the inscription, only two Brāhmī letters were partly visible and it was after the stone was properly cleaned that the inscription, or what remained of it, came into view. That may have been the reason why the previous scholars who had inspected the site before me[1] failed to notice the inscription. The epigraph is in two lines and contains the same text as found in the well-known Ghosūṇḍī inscription and in the two other fragments which were found nearly eighteen years ago on the boundary stone of Ghosūṇḍī and Bassi. It has been hitherto believed that the two fragments just mentioned also formed part of the inscription from Ghosūṇḍī and all the three have consequently been read and interpreted as if they formed component parts of a single inscription. But a study of the inscription under consideration found *in situ* proves conclusively that the two small fragments found at Bassi must have been pieces of a third inscription, the remaining portion of which has yet to be found, and also that these fragments as well as the Ghosūṇḍī inscription, like the present record, originally belonged to Hāthī-bāḍā. Moreover, comparing the text preserved in these three records—each fragmentary by itself—the sense of the whole inscription can now be made out with a fair amount of certainty. The object of the inscription is to record the construction of an enclosing wall—now to be definitely identified with the Hāthī-bāḍā—at Nārāyaṇa-vāṭikā for the divinities Saṁkarshaṇa and Vāsudēva by (the king) Sarvatāta, a Gājāyana and the son of a lady of the Parāśara-*gōtra* (*Pārāśarī-putra*), who was a devotee of Vishṇu and had performed an Aśvamēdha sacrifice.

The record is highly interesting from literary, religious and historical points of view. It is written in early Brāhmī characters and Sanskrit language

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[1] *Cf. A. R. A. S. W. C.* 1915.

and on palæographic grounds may be assigned to the beginning of the first century B.C. It thus adds to the very few records in Sanskrit known to be belonging to such an early period proving, once again, the incorrectness of the opinion held by certain scholars that inscriptions ranging between 300 B.C. and A.D. 100 were all written in a vernacular closely allied to Pāli and that Sanskrit was not used, at least in inscriptions, during this period. It also shows that in the 1st century B.C. both the brothers Saṁkarshaṇa and Vāsudēva were still worshipped as popular deities, though we know that at a later period, the worship of Saṁkarshaṇa was discontinued and Vāsudēva alone remained the object of worship. As to the historical personage mentioned in the inscription as Sarvatāta, we are not certain whether he is referred to by his name or simply by an epithet of his. Prof. Bhandarkar, who is editing the record in the *Epigraphia Indica*, is inclined to the latter view. We also find that the metronymic of this ruler was Pārāśarīputra and his patronymic Gājāyana and the latter shows that he was a Brāhmaṇ. Prof. Bhandarkar, agreeing with Mr. J. C. Ghosh, observes that Gādāyana or Gōdāyana found in the *Matsya-Purāṇa* as the name of a *gōtra* may be a misreading for Gājāyana. This *gōtra* is recorded under the Kāṇva division of the Aṅgiras *gaṇa* which shows that Sarvatāta was a Kāṇva. Now we know from the Purāṇas that the Kāṇvas became the rulers of North India after the Śuṅgas in the first century B.C. On these grounds Prof. Bhandarkar concludes that Sarvatāta was a Kāṇva ruler and explains the non-occurrence of the name in the Puranic list of the Kāṇva rulers by considering it to be an epithet and not the regular name. If this supposition is correct, then this record happens to be the only one that has yet been found of the Kāṇva dynasty.

At Chitorgarh I found a piece of an inscribed slab built into the wall of a modern Śiva temple just above the Śaṅkar Ghāt on the Gambhīrī river. This inscription, though fragmentary, is interesting in that it mentions a king named Mānabhaṅga who is most probably to be identified with the Mori (Maurya ?) chief Māna from whom Bāpā Rāwal of the Guhilot clan is said to have wrested Chitor. Long ago Tod found an inscription on a column on the banks of the lake known as Mānasarōvara near Chitor. This inscription is now missing but, according to the translation given by Tod, it bears the names of four kings of the Mori clan, *viz.*, Mahēśvara of the race of Tvashṭṛi, Bhīma, his son Bhōja and Māna. The portion in Tod's inscription which bore the date is translated as 'seventy had elapsed beyond seven hundred years when the lord of men, the king of Malwa formed this lake'. It is apparent from the name which still adheres to the lake that it was excavated by Māna and also that only the Mālava era is referred to in this portion of the inscription as was pointed out by Kielhorn long ago. This inscription is thus to be dated in Vikrama Saṁvat 770. The dated portion of the inscription from Chitor which is under consideration, is, unfortunately, not completely preserved but in l. 17 we find the reading *saptasu śatēshu* which undoubtedly shows that this record also has to be referred to the eighth century of the Vikrama era and makes the proposed identification quite certain. According to this inscription, Mānabhaṅga belonged to *grahapati-jāti*. It is not certain whether we have to understand from this that he was

only born in the solar family or belonged to a family or race which worshipped the sun. The inscription appears to record certain constructions by him among which were a very high (*abhraṁkasha*) structure, probably a temple and also cisterns (*prapā*) and tanks (*vāpī*). We do not know the provenance of this inscription, but it is very probable that it came from the town of Chitor itself. One of the oldest surviving structures at Chitor is the famous temple of Kālikā, of which the existing parts of the original structure are ascribed by Cousens to the 8th century, though there are large modern additions. It is now dedicated to the goddess Kālikā, but we shall not be far wrong in supposing that this temple was originally built and dedicated to the Sun God by king Mānabhaṅga in the 8th century, a reference to which is found in the inscription under consideration. Nearby is a reservoir of water still called *Sūrya-kuṇḍa* which may have been contemporary with the temple and possibly one of the *vāpīs* mentioned in the inscription.

The temple of Annapūraṇā at Chitor, said to have been built in the 14th century by *Mahārāṇā* Hamīr Sing, has a fragmentary inscription which preserves the names of the *Rāṇās* Mōkala, Kumbhakarṇa, Rājamalla, Ratnasiṁha and Vaṇavīra. The year in the date is lost but it could not have been earlier than A.D. 1536, the time of accession of Vaṇavīra. Since this Rāṇā ruled only for a year, it is quite possible that this inscription belonged to one of his successors. In the temple of Kakureśvar Mahādeo there is an inscription on a slab of stone engraved beside the statue of Gaṇēśa which is dated Saṁvat 1574, the 13th day of the bright half of Vaiśākha, Tuesday, during the reign of *Mahārāṇā* Saṁgrāma.

In the Victoria Hall at Udaipur, I found a few inscriptions which still remain unnoticed, only two of which are considered in this report. The first is an early inscription in fourteen lines engraved on a slab of stone in a script which seems to be a little later than that found in the Sāmolī inscription of the time of Śīlāditya and the Udaipur inscription of Guhila Aparājita and may therefore be approximately assigned to the eighth century A.D. The slab appears to have been used for sharpening tools or some similar purpose, as a result of which the middle portion of the inscription from the first to the tenth line has suffered very much. The inscription records the construction of a Śiva temple by one Kadarthīdēva. The portion dealing with the donor is badly damaged and nothing can at present be gathered about him from the inscription. But most probably he was only an important individual and not a chief as he bears the simple honorific title *śrīmān*. He also made certain grants for the future repairs of the temple, the details of which are now lost. The temple was founded on the 5th day of the bright half of Chaitra when the moon was in conjunction with the *nakshatra* Rōhiṇī and was consecrated by a Śaiva teacher named Kuṭukāchārya. It is very strange that though the other details of the date are given in the inscription, the year has been altogether omitted. The inscription was composed by Jhaṁjhu, the son of Mamma-bhaṭṭa and engraved by the goldsmith (*hēmakāra*) Nāgāditya. The second record in the Victoria Hall is an inscribed slab of stone in 25 lines of the reign of *Rāṇā* Jagatsiṁha, dated Samvat 1703, the second day of the bright half of Bhādrapada—the date being given

both in words and numerals—and contains the following genealogy of the Guhilot rulers of Mewār: *Rāval* Bāpā, in his family *Rāṇā* Rāhappa; after him the *Rāṇās* Narapati, Dinakara, Jasakarṇa, Nāgapāla, Pūrṇamalla, Pṛithvīmalla, Bhuvanasiṁha, Bhīmasiṁha, Jayasiṁha, Lakhamasī, Arasi, Hamīra, Kshētrasiṁha, Lākhā, Mōkala, Kumbhakarṇa, Rāyamalla, Saṁgrāmasiṁha, Udayasiṁha, Pratāpasiṁha, Amarasiṁha, Karṇasiṁha and Jagatsiṁha. There is a slight difference in the genealogy given in this inscription and the Ekliṅgajī temple inscription of the reign of Rājasiṁha, dated Saṁvat 1709. According to Ojha, we find in the latter Nāgapāla succeeded by Karṇapāla who is again succeeded by Bhuvanasiṁha. In the present inscription, however, we find the names of Pūrṇamalla and Pṛithvīmalla after Nāgapāla. The name of Udayasiṁha who became Rāṇā after assassinating his father Kumbhakarṇa is, as in other Mewār inscriptions, omitted in this inscription. Such was the abhorrence for him that he is passed over even in the chronicles of Rājputāna or is alluded to as *hatyārō* or the murderer. In this inscription as in that of the Ekliṅgajī temple, the names of the three rulers Ratnasiṁha II, Vikramāditya and Vaṇavīra are also omitted after Saṁgrāmasiṁha. The record was incised on the occasion of a recurring *tulā* ceremony when the *Mahārājādhirāja Mahārāṇā* Jagatsiṁha, the son of king Karṇa and the lord of Chitrakūṭa (Chitor) gave to Brāhmaṇs his weight in silver (*kala-dhauta-dhōraṇi-tulā*) in the vicinity of the lord (*paramēśvara*) in Mewār. We know from the Rājasamudra *praśasti* of his son Rājasiṁha that, each year after his coronation, Jagatsiṁha distributed his weight in silver, while from Saṁvat 1704 onwards he distributed his weight in gold. The present inscription thus proves the correctness of the statement made in the Rājasamudra *praśasti*. The record was composed by the court poet Lakshmī(bhaṭṭa), son of Kṛishṇa-bhaṭṭa, a Tailiṅga or Andhra Brāhmaṇ belonging to the village Kaṭhauṁḍī in the Eastern Country. The *sūtradhāra* was one Raghu, son of Shētā.

When at Udaipur I paid a short visit to Jāvar, about twenty-two miles to the south of the city. This was once an important place, being a mining centre where lead and zinc were extracted. Besides the temple of Jāvarmātā and Rāmasvāmin (commonly known as Ramānāth), there are, in this place, also a few ruined Jaina temples. In the latter are found a number of inscriptions, mostly votive, which do not contain much beyond the names of the donors and some of the *āchāryas* connected with the respective temples. Among the few records of some historical importance, one is dated *Saṁvat* 1478 *Pausha su.* 5 in the reign of *Rājādhirāja* Mōkaladēva and records the construction of a temple of Śāntinātha; while another is dated Saturday, the 3rd day of the bright half of Vaiśākha Saṁvat 1694, Śaka 1560, during the reign of *Mahārājādhirāja Mahārāṇā* Jagatsiṁha and records the installation of an image of Śāntinātha at Yōginīpura by certain people by the order of the *Kumāra* Rājakumāra who is probably identical with Rājasiṁha, the successor of Jagatsiṁha. Apparently the Vikrama year current in these parts is the Kārttikādi (Southern) year and the date of the inscription just mentioned would thus correspond to Saturday the 7th April A.D. 1538. As regards the name Jāvar, it has been evidently derived from

Jāpura found in a few inscriptions dated in the 15th century of the Vikrama era or earlier. In an inscription dated Saṁvat 1492 the place is mentioned as Jāurapura, where the Prākrit form of Jāpura has been used and an additional *pura* unnecessarily added, apparently in ignorance of the original derivation of the name. In the inscriptions of the 16th century or later, the name Yōginīpura is regularly found, but it is not clear if the old name of Jāpura was replaced by Yōginīpura or the latter was the name applied to a new portion of the town. In any case, the name Yōginīpura seems to have been forgotten in course of time, while the original name still clings to the place.

In the Vishṇu temple of Rāmasvāmin at Jāvar there is a slab containing a Sanskrit inscription in forty lines which is divided into three parts. From the first part we learn that a tank in the vicinity of this temple was constructed by Ramābāī, the daughter of *Mahārājādhirāja Mahārāṇā* Kumbhakarṇa, the lord of Chitrakōṭa (Chitor) and the wife of *Mahārāyārāyā* Maṇḍalīka of the Yādava family and the lord of Sōraṭha (south Kāthiāwār). It appears that the temple was also constructed by the same lady, the date of consecration being Sunday, the 7th day of the bright half of Chaitra in Saṁvat 1554. This date appears to be slightly irregular, as taking the year to be Kārttikādi, it must be equivalent to Saturday, the 28th April, A.D. 1498, but the intended date is probably Sunday, the 29th April of that year. It appears from the second verse of the inscription that Ramābāī was also responsible for the building of a temple of Dāmōdara or Vishṇu on the Kumbhalamērudurga, *i.e.*, Kumbhalmer and a tank on the southern side of the hill. Verses 3-10 give a poetic description of the tank excavated at Yōginīpura, *i.e.*, Jāvar. The five verses in the second part are all devoted to the praise of Ramābāī who, we learn, was an expert singer and was versed in the treatises of Bharata and other old masters. The third part, the concluding portion of which is damaged, is a panegyric of her husband Maṇḍalīka. This ruler is certainly to be identified with the Yādava Chuḍāsamā ruler of Soraṭh whose known inscriptions are dated Saṁvat 1507, 1512 and 1525. A reference is made in the first verse to the image of Dāmōdara on the Raivataka or Girnār hill which makes the identification still more certain. According to Muslim historians, Mahmūd of Gujarāt attacked Girnār and compelled 'Mandalak' to surrender on December 4, A.D. 1470 and made him accept Islam under the name of Khān Jahān (*Camb. Hist. of India*, Vol. III, pp. 306 and 519). But from the description of the poet Mahēśvara in the present inscription of A.D. 1498, one could easily form the opinion that both Maṇḍalīka and his wife were present in person at the consecration of the temple and the tank. In the absence of further particulars, it is difficult to reconcile the two statements found in these two different sources.

At Jāvar, I found an interesting Gaṇapati image lying by the road side. We learn from the inscription on the pedestal that the image was the gift of one Hīrā, the son of Mālā and a resident of Yōginīpura, in the victorious reign of *Mahārājādhirāja Mahārāṇā* Saṁgrāma. The details of the date are given as *Saṁvat* 1580 *Vaiśākha sudi* 12, *Friday*, *Uttarā-Phālgunī-nakshatra*, *Harshaṇa-yōga* and *Bālava-karana*. The date is regular for Friday, the 15th April, A.D. 1524. The

principal image is flanked on the right by the figures of Buddhi and Lābha and on the left by those of Siddhi and Laksha—whose names are also inscribed on the pedestal below the respective figures. According to *Śivapurāṇa*, Gaṇapati had two sons Kshēma and Lābha by his two wives Buddhi and Siddhi respectively. Laksha of this image apparently stands for Kshēma of *Śivapurāṇa* but I cannot explain why Lābha should be grouped with Buddhi instead of Siddhi and *vice versâ* unless the names were wrongly incised by the scribe who was ignorant of the correct iconographic details.

At Dhār I examined the fragments of stone slabs containing Prākrit poems which were rescued from the *débris* some years ago and are now preserved in the Bhōjaśālā. I recognised in these the remains of two poems, one of which was very long containing more than 572 stanzas. With the exception of the opening words *ōṁ namaḥ Śivāya* and the colophon at the end, the whole record is in poetry. The verses are in Āryā metre and the language is Mahārāshṭrī Prākrit mixed with a few Apabhraṁśa forms. The colophon at the end, which is unfortunately only partially preserved, reads: *Iti Mahārājādhirāja-paramēśvara-śrī-Bhōjadēva-virachitaḥ Kōdaṇḍa*——. We can only conclude from this that the title of this literary piece began with Kōdaṇḍa. We cannot, however, trace the name of this work in any other source. The other poem, now preserved only in 91 fragmentary lines, reads in l. 53 *°bhidhānaṁ dvitīyaṁ khaḍgaśataṁ*. The number of the verse recorded in l. 49 is 105. From l. 54 another collection of verses was continued, the last number preserved in l. 90 being 100. We already know of two such collections of 109 verses called *Avanikūrmaśata* which were discovered in the same site. It is apparent that this poem, now preserved in fragments, contained at least three *śatakas* and possibly here too, each ode, like the others mentioned above, contained 109 verses. As regards the authorship of these poems they are, as in the case of the two *Kūrmaśatas*, said to be the works of king Bhōja himself, but the very fact that Bhōja is directly addressed in them (*cf. siri Bhoa tujjha kittī tihuṇa-*) shows that he was not the real author. We know that Bhōja was a great patron of learning and these poems must have been composed by some poets seeking royal favour, who assigned to him the authorship of their own compositions.

At Māndu I copied a few inscriptions most of which consisted of small fragments. One of these begins with the invocation of Sarasvatī, the goddess of learning, to whose praise a few verses are devoted in the inscription. The well-known story connected with the origin of the Paramāras is also found therein. Unfortunately, the portion containing the object of the inscription and the name of the ruling Paramāra sovereign is lost, but from the way Sarasvatī is invoked one might be tempted to think that at Māndu as in Dhār, there might also have existed a temple dedicated to this deity to which the slab originally belonged. A beautiful image of Śēshaśāyin, which was found near the Lohāni cave, is now preserved in the P. W. D. office at Māndu. The pedestal contains an inscription dated Saṁvat 1258 and seems to record the gift of Khāvūka, tho son of Lakshmidēva.

Several new copper-plate grants were examined in this office, four of which are briefly noticed here. The first is a single plate from the Irda Zamindari in Orissa brought to the notice of Mr. N. G. Majumdar. It is engraved on both sides in proto-Bengali characters of about the middle of the 10th century, and records the grant by the *P. M. P.* Nayapāladēva of the village Bṛihach-Chhattivannā, adjoining to Kaṇṭi, Saṁmāsha and Bāḍakhaṇḍa in the Daṇḍabhukti-*maṇḍala* of the Varddhamāna-*bhukti*. The gift was made on the *Yugādi-navamī* day to *paṇḍita* Aśvatthaśarman who was himself born at Drōṇa but his family had originally hailed from Kuṇṭīra. Apparently the reference in the date is to the Kṛitayugādi day which falls on the 9th day of the bright half of Kārttika. Though the donation was made on this day, the record seems to have been actually issued on the 18th day of Kārttika in the regnal year 13, the date which it bears at the end. The grant which was issued from Priyaṅgu, the capital city, contains the following pedigree of the donor: *P. M. P.* Rājyapāla, a scion of the Kambōja race and a worshipper of Buddha (*saugata*), whose queen was Bhāgyadēvī and who had two sons Nārāyaṇapāla and Nayapāla. Though all these names are familiar from the inscriptions of the Pālas of Bengal, the genealogy found here is different. Indeed the Pāla king Rājyapāla had a queen named Bhāgyadēvī, but their son was Gōpāla (II). Moreover, Rājyapāla of this record belonged to the Kambōja lineage, while according to *Rāmacharita* the Pālas belonged to *samudra-kula*, whatever that might really signify. Another difference is that the seal of the present inscription, though resembling the Pāla seals, is soldered on to the plate in a way not noticed in the records of the Pāla and Chandra kings. On these grounds, Mr. N. G. Majumdar, who is editing the record in the *Epigraphia Indica*, is of opinion that these rulers probably belonged to the same family as that of the lord of Gauḍa mentioned in the Bāngarh pillar inscription, who bore the epithet *Kuñjaraghaṭāvarsha* and belonged to the Kāmbōja lineage. If this identification is correct, it would show that these Kāmbōja rulers seized, for a time, not only North Bengal but also the south-western part of the province which included the Varddhamāna-*bhukti*, by ousting the Pālas sometime during the 10th century.

Prof. Altekar has sent an article on two sets of copper plates that are now preserved in the Museum of the Bhor State in Poona district. Nothing is known about their provenance, but as the localities mentioned in these records can be identified with villages situated round about Bhor, it is likely that they were found in the neighbourhood. The first set, consisting of three plates and written in the Nāgarī script and Sanskrit language, is dated the Rathasaptamī or the 7th day of the bright half of Māgha in the Śaka year 702 and the (Northern) cyclic year Siddhārthin, which regularly corresponds to Tuesday, the 18th January, A.D. 780. The donor of the grant was the Rāshṭrakūṭa sovereign the *P. M. P.* Dhārāvarsha Dhruvarāja *alias* Nirupama who, while encamped on the bank of the Nīrā river, granted the village of Laghuviṅga in the *vishaya* of Śrīmāla (modern Sirval) to one Vāsudēvabhaṭṭa, a resident of Karahāḍa (modern Karāḍ in Sātāra district). The *dūtaka* was the *Rāṇaka* Nāgapa and the writer one Sāmanta. The second set also consists of three plates, the characters being

Nāgarī and the language incorrect Sanskrit. The grant was issued by the *Mahāmaṇḍalēśvara* KHAMBHA (II), the lord of Sirivalaya, who had the privilege of the five great sounds (*samadhigata-pañcha-mahāśabda*) and who belonged to the Chālukya lineage. His grandfather was Khambha (I) and his father Tailappa. Nothing is known about these chiefs from any other source. Probably they were feudatories of the Chālukyas of Kalyāṇī. A long list of the officers of the State, apparently constituting the royal council, is given in which, among others, we find the names of Sōmanāthaiyā, the minister of the chief queen Siriyādēvī (Śrīdēvī) and Balaiyā (?) the chief *daṇḍanāyaka* who held the office under the queen Mahalādēvī. This shows that probably these ladies also took part in the administration of the kingdom. The date of the inscription which is given both in words and numerals, is Saturday, the full moon day of Jyēshṭha in the Śaka year 1001, the cyclic year being Siddhārthin, and corresponds to Saturday, the 18th May, A.D. 1079. It is interesting to note that here also, as in the first set mentioned above, the village granted is Viṅga which is further described here as a *mahā-sthāna* or holy place. The names of the donees, *viz.*, Kumbhadēva, Gaṅgaladēva and others, are not given where they should be in the record, but are mentioned casually at the end. Sirivalaya of the inscription is the same as Śrīmāla of the first set, and must be identified with modern Sirval, a large village on the Nīrā in the Bhor State on the Poona-Bangalore road. As the charter does not mention any particulars about the grantees, it cannot be ascertained whether they belonged to the family of Vāsudēvabhaṭṭa, the original donee, and there being a change in the ruling dynasty, Khambha renewed the charter, or it was a fresh charter given to those people who were in no way connected with the family of Vāsudēvabhaṭṭa. Prof. Altekar thinks that the descendants of Vāsudēvabhaṭṭa, who lived in Karāḍ, some 65 miles away, might have found it difficult to manage the property from such a distance and ultimately disposed of it to the Brāhmaṇ community of Viṅga, the members of which might have, in their turn, induced the ruling chief to make it tax free and issue the charter.

A set of two copper-plates belonging to the Kalachuri PRATĀPAMALLADĒVA of the Ratanpur branch was discovered at Pendra Bandh in the Raipur district, C. P. This is the only inscription known of this ruler. It gives the following genealogy of the Kalachuri rulers of Ratanpur: In the Haihaya family was born Kōkalladēva. He had eighteen sons of whom the eldest became the lord of Tripurī and made his relations (*bandhu*), apparently his brothers, lords of *maṇḍalas*, the youngest of whom was Kaliṅgarāja. The name of his son and successor Kamalarāja, which is found in the other inscriptions of the dynasty, is omitted here, evidently by mistake. Afterwards are mentioned in succession Ratnarāja (I), his son Pṛithvīdēva (I), his son Jājalladēva (I), his son Ratnadēva (II), who is said to have defeated Chōḍagaṅga and Gōkarṇa in battle, his son Pṛithvīdēva (II), his son Jagaddēva, his son Ratnarāja (III) and his son Pratāpamalla. While editing the Kharod inscription of Ratnadēva III, I pointed out for the first time that Pṛithvīdēva had another son, probably an elder one, named Jagaddēva besides Jājalladēva II. The present record though proving

my assumption about Jagaddēva omits altogether the name of Jājalladēva (II) from the genealogy. But there can be no doubt that the latter was for some time the ruler of Ratanpur, as he issued the Amodā plates dated in the Kalachuri year 912 (A.D. 1161) and is mentioned in the Seorinārāyaṇ stone inscription of K. 917 (A.D. 1165) and the Kharod inscription of Ratnadēva (III), dated K. 933 (A.D. 1181-82) mentioned above. We cannot assign a definite reason for this omission unless this is also due to an oversight. It cannot be that he usurped the throne for a few years, in which case he should not have been mentioned in the Kharod inscription also. As I have already said elsewhere, it may be that possibly Jagaddēva was away from the capital for a long time engaged in a conflict with the Eastern Gaṅgas and during his absence Jājalladēva ruled the kingdom. The object of the present grant is to record the gift of the village Kāyaṭhā in the Anargha-(?)*maṇḍala* by Pratāpamalla to a learned Brāhmaṇ named Satyasādhāra, a list of whose ancestors is also given in the record. The gift was made on the Makarasaṁkrānti day. The date, as given in the last line of the record, is Kalachuri *Saṁvat* 965 *Māgha sudi 1*[*0*], *Tuesday*. After the year we find engraved a few words from which it appears that the grant was issued from the victorious camp of Palasadā. The seal of the record bears the legend: *Rāja-Śrīmat-Pratāpamalladēvaḥ*.

Besides those mentioned above, impressions of eleven other inscriptions were also received from various sources for decipherment and report. Some of the old inscriptions and seals which have not yet been properly edited were also re-examined by me, at least one of which deserves mention in this report. It is a terra-cotta seal of the Gupta king Kumāragupta II and was recovered from site No. 1 at Nālandā a few years back. The only other known seal of this ruler is the copper-silver seal discovered nearly half a century ago at Bhitarī in the Ghāzīpur district, U. P. The seal under consideration, like that from Bhitarī, depicts the figure of Garuḍa at the top with an emblem of the sun and the moon on each side. Both contain the same text and the same number of lines of writing. But the Nālandā seal is much better preserved of the two and as such helps us to correct a few errors in the genealogy of the Gupta rulers which were due to misreadings of certain names in the Bhitarī seal. Hoernle read the name of the wife of Puragupta and the mother of Narasiṁhagupta as Vatsadēvī and that of the wife of the latter and the mother of Kumāragupta II as Śrīmatīdēvī. Fleet read the name of the latter queen as Mahālakshmīdēvī. Hirananda Sastri, who had studied the seal from Nālandā, pointed out in a note (*Ep. Ind.*, Vol. XXI, p. 77, postscript) that the name of Puragupta's wife (not mother as stated by Sastri) has to be read as Vainyadēvī and that of Kumāragupta II's mother as Mitradēvī. On examining a photograph of the same seal I find, however, that while the name of Kumāragupta II's mother was Śrī-Mitradēvī that of Puragupta's wife has to be read as Śrī-Chandradēvī and neither Vatsadēvī nor Vainyadēvī. It is seen from the published plate of the Bhitarī seal also that though the second syllable of this name is only partly visible its first syllable is certainly *cha*.

With regard to the progress made in the collection of SOUTH INDIAN INSCRIPTIONS in the Madras Presidency and KANARESE INSCRIPTIONS in the Bombay Karnatak the Superintendent for Epigraphy reports:

"During the year under review 316 villages were visited in the Madras Presidency and 71 inscriptions were copied. In the Bombay Karnatak 65 villages were inspected and 67 inscriptions were secured. Besides these, 25 copper-plate grants were also examined and photographs, mostly of the seals of these grants, were taken.

"The copper-plate collection of the year includes a few early grants. The plates of King UMAVARMAN which come from Tekkali may be assigned to about the 5th century A.D. on paleographical grounds. These have been published with an indifferently read text and without plates in the Journal of the *Andhra Historical Research Society* (Vol. VI, p. 53). The plates do not mention the dynasty of the king and he may be different from King Umavarman of the Bṛihatprōshṭha grant dated in his 30th regnal year, and issued from Vijaya-Sīhapura, where he is specifically called 'Kaliṅgādhipati' (*Epigraphia Indica*, Vol. XII, p. 4). The present record registers the grant of the village Astihavēra to a Brāhmaṇ named Yaśaśarman of the Kāśyapa-*gōtra* and was issued from Vijaya-Varddhamānapura in the 9th year of the king's reign. It is stated to have been written by Kēśavadēva, a resident of Pishṭapura. It must, also, be noticed that the script employed in the present inscription is more angular than that found in the Bṛihatprōshṭha grant. Another early grant is that of the Kaliṅgādhipati CHAṆDAVARMAN, issued from Vijaya-Siṅghapura on the 5th day of the 2nd fortnight in the Grīshma (season) of the 4th year of his reign. It registers the gift of the village Tiritthāṇa as an *agrahāra* to several Brāhmaṇs. Though the seal of this grant bears the legend 'Pitṛibhaktaḥ' which is also found on the seal of the Kōmarti plates of Chaṇḍavarman (*Epigraphia Indica*, Vol. IV, p. 142), the king may not be identical with the donor of the Kōmarti plates which were issued in the 6th year of his reign from the same place, that is, Vijaya-Siṁhapura. It must be observed here that the script of the grant under consideration is more angular and so earlier than that adopted in the Kōmarti plates. Again, king Chaṇḍavarman of the latter plates is styled *Parama-Daivata* while the king of our grant calls himself *Parama-Bhāgavata*. It has also to be noticed that our grant adopts the earlier practice of dating records according to the seasons of the year, while it is not the case with the Kōmarti plates. Another interesting point is that the reference to the thirty-six *agrahāras* made in this grant is also found in the Bṛihatprōshṭha grant of Umavarman, which also was issued from Vijaya-Sīhapura. The engraver of our present grant was the *Dēśākshapaṭalādhikṛita* Rudradatta, son of Mātṛivara. It is not unlikely that the engraver of the Bṛihatprōshṭha grant, whose name, I suggest, may be read as *Dēśākshapaṭalādhikṛita* Mā[tṛi]vara, was a descendant of the Mātṛivara of our inscription, since the script and the method of dating adopted in the latter are earlier. These associations seem to bring the grants of Chaṇḍavarman and Umavarman into closer proximity of time. Another Kaliṅga grant in the collection is that of *Mahārāj*-ANANTAVARMAN (*Mahārāja* Anantavarman) who is

styled 'Kalingādhipati' and who is described as the son of *Mahārāja* Prabhañjanavarman, the moon of the Vāsishṭha family and the grandson of *Mahārāja* Guṇavarman, who was the Lord of Dēvarāshṭra. It records the grant of the village Kiṇḍeppa in the Tellavalli-*vishaya* to a Brāhmaṇ named Mātṛiśarman of the Kauśika-*gōtra* and the Taittirīyaka-*śākhā* and a resident of Achaṇṭapura. This king is identical with Anantavarman of the Siripuram plates noticed in the epigraphical résumé for 1931-32. The date portion of the grant is lost in the broken and missing piece of the last plate. The importance of the grant lies in the fact that it mentions Pishṭapura as the *adhishṭhāna* of the king, from which it was issued, and 'Dēvarāshṭra' as the country of Guṇavarman. Dēvarāshṭra must evidently be identical with Dēvarāshṭra-*vishaya* mentioned in the Kasimkōṭa plates of the Eastern Chāḷukya king Chāḷukya-Bhīma I, which has been identified with the Dēvarāshṭra of Kubēra mentioned in the Allahābād pillar inscription of Samudragupta. It has also to be noted, that unlike the seal of the Siripuram plates of Anantavarman which was completely worn out and consequently gave no definite idea of the emblem engraved thereon, the seal of the present grant is well preserved and depicts in relief a conch (*śaṅkha*) which now appears for the first time as the *lāñchhana* of the king. Another important grant belongs to *Mahārāja* ANANTA-ŚAKTIVARMAN the lord of Kalinga and was issued from Vijaya-Singhapura. The characters are of about the 5th century A.D. The monarch bears the epithet *Parama-Daivata* which was also borne by the Kalinga king Chaṇḍavarman of the Kōmarti plates and is stated to have been the ornament of the Māṭhara-kula. He bestows the gift of a village in Barāha(Varāha) vartanī-*vishaya* on two Brāhmaṇ brothers called Nāgaśarman and Duggaśarman of the Kātyāyana-*gōtra* in the 28th year of his reign. The grant mentions two *dūtas viz.*, Śivabhōjaka and Vasudatta, both of whom bore the title *Kumārāmātya* and the titles *Mahābalādhikṛita* and *Daṇḍanētṛi* respectively. The writer of the charter was *Dēśākshapaṭalādhikṛi[ta]** (and) *Talavara* Arjunadatta. The particular interest of the record lies in the double form of the king's name Ananta-Śaktivarman. It is not unlikely that it indicates that Śaktivarman was the son of Ananta(varman). It is also noteworthy to see that the name of the composer of this grant namely Arjunadatta occurs also in the Rāgōlu plates of Śaktivarman where he is designated as the *Amātya* and not *Dēśākshapaṭalādhikṛita*. Palæographically, the present inscription is later than the Rāgōlu plates, and it is not impossible that the Arjunadatta of these plates was an ancestor of the composer of the grant under review. It would not be unreasonable to suggest that the family name of Śaktivarman might be Māṭhara (which reading is not improbable) and not Māga[dha] as read by Dr. Hultzsch and to suppose that Ananta-Śaktivarman was a successor of Śaktivarman with the possibility of a king named Anantavarman intervening between them. The mention of the officer *Talavara* in the inscription is also noteworthy. The EASTERN GAṄGA dynasty is represented by a grant of HASTIVARMAN, dated in the 79th year, evidently of the Gaṅga era, (*cir.* A.D. 572) and records grant of lands and sites in the village Rōhaṇakī in the Varāhavarttanī-*vishaya* to god Nārāyaṇa called Raṇabhītōdaya. This king who has the *birudas* of 'Rājasiṁha' and 'Raṇabhīta' is identical with the donor of

the Urlām plates dated one year later, namely, in the 80th year of *Vijayarājya-saṁvatsara*. Since the god bears the name Raṇabhītōdaya, called so evidently after the title *Raṇabhīta*[1] of this king, the temple must have been erected or improved during his reign. The grant was written under royal order by Vinayachandra, son of Bhānuchandra, who figures in a similar capacity in the Santabommāḷi plate of Indravarman, son of Hastivarman, dated in the 87th year of the Gaṅga era. Of the WESTERN GAṄGA dynasty we have one copper-plate grant from Dhārwār, belonging to MĀRASIṀHA III. It was issued in Śaka 884 while the king was camping at Mēlpāḍi-śibira, evidently Mēlpāḍi in the Chittoor district, and registers the grant of the village Kādalūru in the Koṅgaldēśa, to the Jaina teacher Ēḷāchārya for providing worship in the *Jinālaya* constructed by the queen-mother Kallabbe. The record contains the usual genealogy of the king and furnishes the following spiritual pedigree of the donee, *viz.*, Prabhāchandra, Kalneledēva, Ravichandra, Ravinandadēva and Ēḷāchārya. This Ēḷāchārya is described as having been adored by many kings and as being proficient in Jaina scriptures. An incomplete set of copper-plates of the Gajapati king Vijaya-pratāpa KAPILĒŚVARA of Orissa, secured from the Guntur district is dated in Śaka 1380 Bahudhānya (A.D. 1458), and registers a gift of the village Veligalani as an *agrahāra*, renamed as Kapilēśvarapura, to 120 Brāhmaṇs of various *gōtras*. In the introductory portion of the inscription, in which only six Sanskrit verses have been preserved, mention is made of the king's campaigns against Hampā (Vijayanagar) and the Kings of Dhār (?), Gulbarga and Delhi. The reference here is evidently to the siege of Vijayanagar undertaken by him during the reign of Mallikārjuna and to his conflicts with the Bahmanī Sultāns which also occurred at this period. These facts are also referred to in the *Gaṅgadāsapratāpavilāsamu*.

"Among the stone inscriptions copied this year the earliest is that belonging to the 18th year of the PALLAVA king NANDIVARMAN, which comes from Paḍuvūr (Chingleput district) and which registers a gift of sheep for a perpetual lamp in the temple of Viḷupperundāya-Vishṇugṛihattu-Perumānaḍigaḷ at Paḍuvūr. An old inscription in characters of about the 9th century A.D. copied in the Tirukkoyilur taluk states that Aṇikōvaṉ Oṟṟiyūr-pirāṭṭi, daughter of Vilāṭarāyar and wife of Vayiramēgha-Vāṇakōvaraiyar caused an irrigation tank to be dug at Nityavinīta-maṅgalam and built a sluice for it. This Vāṇakōvaraiyar is referred to in two records from Tiruvoṟṟiyūr belonging to the 4th year of Aparājita (Nos. 158 to 161 of 1912). Of the CHŌḶAS only the later members are represented in the year's collection. From Arakaṇḍanallūr (South Arcot district) comes an epigraph dated in the 20th year of KULŌTTUṄGA III in which two chieftains named Iraiyūraṉ Periyaüḍaiyāṉ *alias* Rājarāja-Chēdiyarāyaṉ and Eriyappaṉ-Marundaṉ, who both appear to have been subordinates of Poṉparappiṉa-Vāṇakōvaraiyar, entered into a political compact by which each agreed not to do any thing prejudicial to the other's interests, material and political, not to betray each other's secrets and strength to an enemy, and not to hold communications or contract any alliance with each other's foes, and to help each other with

[1] The *biruda* 'Raṇabhīta' reminds us of the titles ending in '*bhīta*' adopted by the Kings of the Śailōdbhava dynasty among whom also was a 'Raṇabhīta'.

soldiers and cavalry in times of danger. Another inscription engraved in the same temple relates to another agreement entered into eight years later, in the 28th year of the same Chōḷa king, in which Rājarāja-Chēdiyarāyaṉ, mentioned above, appears to have changed his allegiance to Vāṇakōvaraiyar, and to have formed an alliance with Aḻagiyanāyaṉ Ahāraśūraṉ *alias* Rājagambhīra-Chēdiyarāyaṉ, the terms of the compact being the same as above. This change of sides on the part of Rājarāja-Chēdiyarāyaṉ must have necessitated the strengthening of his position in his territory and this is reflected in a number of short epigraphs engraved in the Arakaṇḍanallūr temple which record the vows of fealty made by a number of his henchmen not to survive their master's death. A case of voluntary sacrifice of life is recorded in an inscription from the same temple of the time of MĀRAVARMAN SUNDARA-PĀṆDYA, attributable to the 14th century A.D. A certain Iḷaveṇmadiśūḍiṇāṉ, the son of a *dēvaraḍiyāḷ*, is said to have cut off his head, presumably in fulfilment of a vow on the completion of the *maṇḍapa* in that temple, and the *Nāṭṭār* and the temple authorities granted 1,000 *kuḻi* of land as *udirappaṭṭi* in appreciation of this act of self-sacrifice. A slab of stone containing the sculptured effigy of a man beheading himself is found planted in the village nearby. Kṛishṇappa-Nāyaka and his son Koṇḍama-Nāyaka of the Kāśyapa-*gōtra* figure in inscriptions of this year's collection from Vṛiddhāchalam and Tirukkōyilūr in the South Arcot district. They ruled in this locality as subordinates of the Vijayanagara kings Veṅkaṭa and Śrīraṅga, and they and their relatives were responsible for the construction of many *gōpuras* and *maṇḍapas* in several temples of the South Arcot district. A stone statue of the former chieftain is placed in a niche in the Vṛiddhāchalam temple and a label inscription is engraved on the top of the niche explaining his identity.

"Among the inscriptions copied this year in the Rāṇibennūr taluk of the Bombay-Karnatak are records of the CHĀḶUKYAS of Bādāmi and Kalyāṇi, the RĀSHṬRAKŪṬAS, KAḶACHURYAS, YĀDAVAS and HOYSAḶAS. Of the first of these dynasties there is a solitary hero-stone of the time of King VIJAYĀDITYA (A.D. 696 to 733-34). The most definitely assignable records of the Rāshṭrakūṭas are two of Indra III dated in Śaka 837 (A.D. 915) and one of KANNARADĒVA."

PUBLICATIONS.

The Epigraphia Indica.

Parts iv to vi of Volume XXI of the *Epigraphia Indica*, the first two under the editorship of Mr. K. N. Dikshit and the third under that of Dr. Hirananda Sastri, were issued during the year. Printing order was also given for part i of Volume XXII under the writer's editorship. As usual, articles were received from the members of the Department as well as scholars from outside. Of the four parts, the first three contain twenty-one complete articles besides the concluding portion of one article and seven pages of Prof. Bhandarkar's *List of Inscriptions of Northern India*. To keep the parts issued by the different editors separate, it was found necessary to include in part v ten pages in excess. Of the articles appearing in parts iv to vi perhaps the most interesting is that on the

Kalāwan copper-plate inscription in Kharōshṭhī edited by Dr. Sten Konow. The date portion of this inscription, which is very well preserved, reads *saṁvat-śaraye* 134 *ajasa Śravaṇasa masasa divase treviśe* 23. While editing the Taxila silver scroll inscription of the year 136 in the *C. I. I.*, Vol. II, part i, Dr. Konow took *ayasa Ashaḍasa* found in that inscription, as corresponding to Skt. *ādyasya Āshāḍhasya*. This explanation suited well at the time as it could be shown that on the supposition that the epoch of the era used here could not be earlier than 88 B.C. and the date of the silver scroll not later than A.D. 78 there were only two years, *viz.*, A.D. 52 and 71 which had Āshāḍha as an intercalary month. And as of these two years, 52 A.D. was found more suitable, Dr. Konow placed the initial year of this era, which he designated the old Śaka era, in 84-85 B.C. But the subsequent discovery of the Kalāwan inscription shows that this explanation of the term *ayasa* has to be given up as there could not be an intercalary Śrāvaṇa in the year 134 and again an intercalated Āshāḍha in the year 136. As *ayasa* of the Taxila silver scroll is spelt as *ajasa* in the Kalāwan inscription, Dr. Konow points out that the explanations offered by other scholars that the term might represent Skt. *āryasya* or *ayasya*, the latter being an irregular genitive of the pronominal base in *ayam*, cannot be accepted and returns to the explanation originally suggested by Sir John Marshall that *ayasa* or *ajasa* means 'of Azes' and quotes the analogy of the doublets *Kujula*, *Kuyula* of the name of the first Kadphises king. He also holds that the era used in this inscription must be referred to an Indian era used by the Parthians—an era started by Azes being an impossibility—as distinct from the Śaka era and identifies it with the 'so-called Vikrama era'. The Śaktipur plates of Lakshmaṇasēna, edited by Dr. D. C. Ganguly, which furnishes us with the names of some new territorial divisions of Bengal is important for the history of that province. This charter, which is dated Saṁ 6, the 7th day of Śrāvaṇa, registers the grant of certain lands, by Lakshmaṇasēna on a solar eclipse day to a Brāhmaṇ named Kuvēra, in exchange of Kshētrapāṭaka which had previously been given to a Gayāl Brāhmaṇ by his father Vallālasēna. Dr. Ganguly thinks, probably correctly, that Kshētrapāṭaka which was already in the enjoyment of an earlier donee must have been given by Lakshmaṇasēna to Kuvēra by mistake and to rectify it he exchanged it for some other lands. Mr. Dikshit, in an editorial note, also agrees with this view by arriving at his conclusion through astronomical calculations. He points out that except in A.D. 1163 which is too early for Lakshmaṇasēna, there was no solar eclipse on the 7th day of Śrāvaṇa throughout the remaining period of the 12th century A.D. In 1183, the 7th day of Śrāvaṇa fell on Sunday the 3rd July while there was a solar eclipse on Monday the 23rd May. He therefore opines that the delay of six weeks in issuing the grant was due to this mistake. But it may also be that while the gift was made on the solar eclipse day, the actual grant was issued on the 7th day of Śrāvaṇa after the usual formalities of the grant were gone through, though it is not unlikely that some additional delay might have occurred in the present instance due to the mistake being detected before the actual issue of the grant. This sort of discrepancy in the date of making the gift and in that of the record is not at all unusual in inscriptions.

In any case, he seems to be quite correct in assuming the year 1183 as the most plausible equivalent of the date, which also places A.D. 1178 as the date of Lakshmaṇasēna's accession, thus corroborating the date known from Śrīdhara's *Saduktikarṇāmṛita*. Mr. K. V. Subrahmanya Ayyar's article on the Tirumukkūḍal inscription of the Chōḷa king Vīrarājēndra is particularly interesting in that it throws, apart from the additional valuable information regarding the king's exploits in Ceylon, a flood of light on the social activities of the period. The inscription records among others the provision made for the maintenance of a college for Vedic studies, giving the details of the honorarium, etc., paid to the teachers in different subjects. It also provides for the maintenance of a hospital for the treatment of the students of the College and the servants of the temple. We learn from it that the hospital had 15 beds for indoor patients and the staff consisted of one physician, one surgeon, two persons for collection of medicinal herbs, two nurses, one barber and a water-man. Fees paid to the members of the staff and the medicines that were to be stocked in the hospital are also mentioned in detail.

Part i of Volume XXII contains ten articles the last of which is continued to part ii. In a note on the Rock inscription at Ci-Arutön in Java, Mr. K. P. Jayaswal has tried to solve the problem of the so-called shell-characters many inscriptions in which are found in North India. Mr. Jayaswal wants to identify this script with the Paushkarasādīyā writing mentioned in Buddhist works as one of the three principal scripts of Northern India. We, unfortunately, know very little of this writing and it is hoped that Mr. Jayaswal's note will bring forth comments which might throw further light on the subject. Dr. Sten Konow has contributed an article on a Kharōshṭhī inscription found on a bas-relief from Begram which is now preserved in the Museé Guimet in Paris and also a note on the Mamāne Dheri inscription. Begram is situated on the confluence of the Ghorband and Panjshir rivers and has been identified by Prof. Foucher with ancient Kāpiśī. The inscription, though small, is interesting as it is the first record in Kharōshṭhī that has been discovered in the neighbourhood of Kāpiśī. Prof. Mirashi has edited the copper-plate grant of the Śarabhapura ruler Mahāpravararāja, which was discovered only a few years back at the village Thakurdiyā in C. P. This is a new prince of the dynasty. The grant was issued from Śrīpura and not from Śarabhapura as found in the other records of the family.

South Indian Inscriptions.

The stitched proof for Volume VIII of the SOUTH-INDIAN INSCRIPTIONS series was ordered and it is expected that the volume will be issued in course of the next few months. With regard to the next Tamil volume, materials for more than half the volume are ready and as soon as the manuscript for the whole volume is complete, it will be sent to the press. Fair progress has been made in the publication of the inscriptions from Bombay Karnatak also, of which 90 pages of proof have already been received.

Of the volume on Kanarese inscriptions in the Madras Presidency being edited by Dr. Shamasastry, 1643 pages of manuscript are in the press, of which

327 pages of proof, covering 911 pages of the manuscript have already been received. In order to prevent the volume from being too bulky, it will be necessary to issue it in two parts, the first part being issued as soon as the inscriptions up to the end of the Yādava period are in print. The second part will consist of the inscriptions of the Vijayanagara and other later dynasties as well as the introduction and index for the whole volume. With regard to the volume on Telugu inscriptions, which is being edited by Mr. J. Ramayya Pantulu, manuscript of 1,336 pages dealing with inscriptions prior to the Vijayanagara period, has been received from the editor, of which 381 pages (up to the end of the Imperial Chōḷa dynasty) have been examined and sent to the press. The remaining portion of the manuscript will be sent to the press as soon as it has been examined.

Miscellaneous Epigraphical Work done in Circles and Museums.

No epigraphical work was done in the Frontier and Eastern Circles. In the Northern Circle only one fragmentary inscription of about the 13th century A.D. was copied at Benares. The Superintendent, Western Circle, reported to have copied 46 Brāhmī inscriptions, which are already known, for being sent to Prof. H. Lüders for inclusion in the *C. I. I.*, Vol. II, pt. ii, which is to deal with non-Aśōkan Brāhmī inscriptions. He also copied 3 Kanarese inscriptions from Gōkarṇa village in the Kārwār taluka in the North Kanara district.

Central Circle.

The Superintendent, Central Circle, sent me estampages of sixteen inscriptions which had been copied at Nālandā, Rājgīr, Deo Barunark and Cuttack. Of the nine inscriptions from Nālandā, eight record only the Buddhist formula engraved either on backs of images or on pedestals. The other is inscribed on the back of a bronze image and records the Tantric formula *Ōṁ khaṁ Vajraśai-(yō?)gini hūṁ hūṁ*. Of the five estampages from the Vaishṇava cave at Rājgīr, only two show a few legible letters in the Gupta characters, which appear to be only pilgrim records. The inscription copied from a ruined Vaishṇava temple at Deo Barunark, Shāhābād district, is in the so-called shell characters. A stone slab now lying in the compound of the Sub-Divisional Officer's Bungalow at Jājpur, Cuttack district, contains an inscription in twelve lines. The epigraph is Buddhist and written in the Nāgarī script and Sanskrit language. It opens with the Buddhist formula *yē dharmmā* etc., after which homage is paid to the Buddhist Trinity—Buddha, Dharma and Saṅgha. The whole of the record following this is badly damaged and only a few letters and words can be made out in places. I have not been able to identify the text but it seems to be a *dhāraṇī*. Various epithets of Tathāgata are found in the record and in l. 11 one might read *Sarvva-Tathāgata-siddha-dhāraṇī*, which, if correct, is a new *dhāraṇī*.

Besides the epigraphs mentioned above, the Superintendent also reports the discovery of a number of inscribed clay sealings and plaques from the site of monastery 11 at Nālandā. According to the list supplied by him, the personal sealings contain the names of Nāgasēna, Kamalasēna, Bōdhimitra, Guṇakara-

dēva and Guṇáśānta. Some other seals contain the usual legend *śrī-Nālandā-mahāvihārē Ārya-bhikshu-saṅghasya* or *Śrī-saṅghasya* (?)

Burma Circle.

The Superintendent, Burma Circle, reports the discovery of six new inscriptions of which the first five are from Hmawza. They are :—(1) an old bilingual Pyu inscription; (2) a short inscription containing the first few letters of the Buddhist formula-*Yē dhammā*, etc., incised on the face of the central portion of the throne of an image of seated Buddha; (3) a short Pyu legend in two lines inscribed on the back of a terra-cotta votive tablet; (4) a short Pyu legend in one line inscribed on the back of a fragment of a terra-cotta votive tablet; (5) an inscription containing the Buddhist formula in Sanskrit and in Nāgarī characters inscribed round the rim of a terra-cotta votive tablet; (6) an old Burmese inscription found on the site of an old *Sīmā* in ruins near the Sinbaung Temple, Thàyipyitsaya, Pagan. The first five inscriptions from Hmawza are referred to in Section II of this Report and the relevant portion of the Circle Superintendent's report on the study of the last inscription is quoted below :—

" No. 6 contains 28 lines, but the first 14 lines are partly damaged. It records, as far as it can be read, the dedication, by a revenue officer and his wife, of lands and slaves to a pagoda and a monastery, and donation of certain objects for the use of monks residing in that monastery. It is dated 595 sakarac (A.D. 1233-34). Apart from the above, mention is made therein of the presence at the dedication of 8 monks headed by 'Skhin Singhuin', a name which probably stands for 'Sinhalese monk', that is, a monk from Ceylon."

Besides these inscriptions the Superintendent received reports from the Rangoon University of the discovery of a few other inscriptions, especially in Mahlaing township. He also reports that the volume on Mōn inscriptions, the publication of which was undertaken by Dr. C. O. Blagden, is now almost ready and soon expected to be out.

Indian Museum, Calcutta.

The Superintendent, Indian Museum, reports the acquisition ot two plates belonging to a copper-plate grant of the Śailōdhava dynasty. Both of these were inscribed on one side only, and must have formed the first and last plates of the set. While examining the impressions of these plates, I remembered a plate of an incomplete grant now preserved in the Varēndra Research Society's Museum at Rājshāhi and wondered if all the three plates might belong to the same set. At my request the Curator of the Society kindly sent me an impression, an examination of which seems only to confirm my supposition. It appears to me that the Society's plate forms the second plate of the set of which the first and third plates have now been acquired by the Indian Museum. If I am correct in my assumption, the charter has now been completely recovered, though the ring and seal are still missing. The record is in Sanskrit and was issued by Mādhavavarman-Sainyabhīta II *alias* Śrīnivāsa of the Śailōdbhava family. It closely resembles the Buguḍa plates of the same king and the genealogy of the

ruler given here is also the same. Unfortunately, the portion dealing with the grant has not come out well on the impression. The name of the donee seems to be Bhaṭṭa Vi[tta]dēva and the name of the donated village Darāśva. The *dūta* was the *Pratihārin* Gaṅgabhadra. The grant was written by Kuṇḍa-bhōgin, the son of Jayasiṁha, registered (*lāñchhita*) by Jayasiṁha and engraved by Chchhaḍḍibhōgin. The reading of the date which is given at the end in two digits is not certain, but most probably like most of the other records of the family, we have to refer it to the ruler's regnal year.

Central Museum, Nagpur.

The Curator reports the acquisition of two inscriptions: (1) a set of four copper-plates, complete with seal, of the Vākāṭaka king Pravarasēna II which was discovered at Tirodi in the Bālāghāt district of the Central Provinces and (2) an incomplete Vākāṭaka copper-plate discovered at Mōhallā in the Pānaharās Zamindari, district Drug, Central Provinces. The first is written in Sanskrit in box-headed characters. The plates were issued from Narattaṅgavāri by the *Mahārāja* Pravarasēna II of the Vākāṭaka dynasty and record the grant of the village Kōśambakhaṇḍa to a Brāhmaṇ named Varuṇāryya of the Harkkari-*gōtra*, who was a student of the Atharva-vēda and a resident of Chāndrapura. The record is dated the twelfth day of the dark fortnight of Māgha in the twenty-third year of the king's reign. The genealogy of the donor given here agrees with that found in his other records. The seal also contains the usual legend in four lines. The second is a single plate containing only a portion of the genealogy and was issued from Padmapura. As the word *dṛish-ṭam*, usually found at the commencement of almost all the Vākāṭaka charters, does not occur in this plate, though space for its engraving was left, Prof. Mirashi concludes that probably the charter of which this plate was meant to form part, was for some reason or other never completed or issued. Even if this is true, we cannot determine at present if the record was subsequently inscribed on another set of plates and issued in due course. As the plates were issued from Padmapura and not Pravarapura, the capital of Pravarasēna II, and as it is neither mentioned as a *tīrtha* (holy place) or a *vāsaka* (camp), the same scholar thinks that it might have been the capital city and as such we have to presume that the plates were issued by a successor of Pravarasēna II, who removed his capital from Pravara-pura to Padmapura. He also takes this Padmapura to be the same city which was the home of the Sanskrit dramatist Bhavabhūti and identifies it with Padam-pur in the Amgaon Zamindari of the Bhandāra district in C. P. Articles on both these inscriptions are under publication in the *Epigraphia Indica.*

Peshawar Museum.

The Curator reports the receipt of only one inscribed slab of stone for the Museum. The inscription was discovered during the year by Captain E. H. Cobb, Assistant Commissioner, Mardan, N.-W. F. Province, in the foundations of an old wall at Hund, the ancient Udabhāndapura, which was the capital of the Shāhīya kings of Kābul. The inscription consists of eight lines of writing in the

Śāradā characters of about the 8th century A.D., its language being incorrect Sanskrit. It records the construction of a *dēvakula* or temple by *Mahārājñī* Kāmēśvarīdēvī of whom nothing is known at present. The work seems to have commenced on Saturday, the eighth day of the dark fortnight of the month of Āśvayuja in Saṁvat 158 and the consecration of the temple made on Thursday, the 12th day of the bright half of Āshāḍha of the next year. Rai Bahadur D. R. Sahni, who is editing the inscription in the *Epigraphia Indica*, reads the years as 168 and 169 but I may point out that the second digit is very much unlike Śāradā 6 and looks more like Nāgarī 5 than 6. In any case, the dates, which have probably to be referred to the Harsha era, are not verifiable whether we read the second digit as 5 or 6. The architect (*navakarmapati*) was one Jayantarāja, an inhabitant of Avantī. He is mentioned as a *sūryadvija* which may signify that he was probably a Maga or Śākadvīpī Brāhman.

Rajputana Museum, Ajmer.

MM. Rai Bahadur G. H. Ojha, the Curator of the Museum, reports to have copied twenty inscriptions during the year. The earliest of them is a fragmentary inscription in two lines and is engraved on a piece of white rock lying in a hill pass about a mile and a half from Khaṇḍelā in the Shekhāvāṭī district of Jaipur State. The characters are early Brāhmī and the language is a Prākrit akin to Pāli. On palaeographic grounds the Rai Bahadur assigns the inscription to the 3rd century B.C. but its date may be a little later. The right hand end of the inscription being broken and lost, the first line is incomplete and consequently, the exact meaning of the record cannot be ascertained. Some of the existing letters are also badly damaged and I could suggest only the following tentative reading:

Line 1. Symbol. Mulena Vachha(or Veda?)haka-nāgarena pa[tha?]kā.

" 2. ātovesiyin[ī]nā mahīsena

According to Rai Bahadur Ojha the inscription appears to mean that somebody was killed by one Mūla with a poisoned arrow and his memorial was set up by Mahīsa, one of his pupils. Apparently he must have read in the first line *vadha* and *śarena* but the fifth letter seems to be a *da* or *chha* and the ninth letter is certainly a *ga*. I must admit that I am not quite certain of the meaning but the first line seems to indicate that something, probably a path, was constructed by Mūla who was an inhabitant of the city of Vedahaka (=Vidēha?) or Vachhahaka. In the second line *mahīsena* is masculine, while *ātovesiyinīnā*, even if it could stand for Sanskrit *antēvāsinī*, would be in feminine. I therefore think that the second line has also to be interpreted differently from what the Rai Bahadur has done.

Of the remaining inscriptions, eight more come from the Jaipur State, seven from the Partābgarh State and four from the Sirohi State. The earliest of these is an inscribed slab lying in the house of a Mahājan at Khaṇḍelā in the Jaipur State. The inscription is dated in the month of Chaitra of the Vikrama Saṁvat 701. The week day which was in the bright half of the month is lost. The inscription which is badly damaged is mostly in verse and records the construction of a temple of Ardhanārīśvara by one Ādityasēna. It gives the following

pedigree of the donor: the *vaṇik* Durgavardhana born in the famous Dhūsara family, his son Gaṅgaka, his son Bōddha, his son Ādityasēna. It was composed by Bhaṭṭa Satya Ghōsha who was a *dīkshita* and was engraved by Maṇḍana. Three memorial stone inscriptions were found lying in the compound of a mosque at Revāsā in Shekhāvāṭī district, all dated in *Saṁvat 1243* (the digit for hundred being omitted in two cases), *Mārga-sudi 11, Wednesday*, during the reign of Pṛithivīpāladēva. They record the death, possibly in battle, of three persons Nānnadēva, Dulahadēva (Durlabhadēva) and Siṅgharā (Siṁharāja) of the Chandēla family at the village of Khaluvāṇā in the Chandēla *Pratigaṇaka*. The ruler mentioned in them has been correctly identified with Pṛithvīrājadēva (III) of the Imperial Chāhamāna dynasty. In the temple of Harashnāth at Shekhāvāṭī was found a votive tablet of *Saṁvat 1535 Ashāḍha sudi 6*, during the reign of *Sulatāna* Gyasadi (Ghiyās-ud-dīn Khaljī of Māndu) which mentions the ancient name of the place as Sikhāvaṭa. Another inscription found on a slab built into the wall of a well called Kālibāya situated at a distance of about a mile and a half from Khaṇḍelā is interesting though it belongs to a late date. It is badly damaged and bears two dates. The earlier is *Saṁvat 1575 Phāguṇa sudi 13, Friday*, when the Vaṇiā Pṛithvīrāja of the Agravāla community and his sons commenced the construction of the well during the reign of Sultān Ibrāhīm Lodī, the chief of Khaṇḍelā at the time being *Rāvat* Nāthudēva, belonging to the Nirvāṇa family. The work took more than 16 years, being completed only in *Saṁvat 1592 Jyēshṭha sudi*.., in the reign of Hēmāu, *i.e.*, the Mughal Emperor, Humāyūn. This is the first inscription to mention the Nirvāṇa branch of the Chauhān family.

All the seven inscriptions in the Partābgarh State come from Deolia and its neighbourhood. They are all late but throw some light on the history of the State. The names of the following rulers of the State are found in these inscriptions: *Rāvat* Siṅghā (Saṁvat 1684), *Mahārājādhirāja* Harisiṁha (Saṁvat 1707, Śaka 1572), *Rāvat* Pratāpasiṁhajī (Saṁvat 1728 and 1731), *Mahārājādhirāja Mahārāval* Pṛithvīsiṁha (Saṁvat 1772 and 1774), *Mahārājādhirāja Mahārāval* Gōpālasiṁha and *Mahārājādhirāja Mahārāval* Sāmantasiṁha (Saṁvat 1838). The inscription of Saṁvat 1707 mentions Harisiṁha as the lord of Mālavakhaṇḍa and records the construction of a temple, apparently that of Gōvardhananātha at Deolia where the inscription is found and a well with a garden, by Champā of the Chauhān clan and the wife of the *Rāvat* Jasavantasiṁha, evidently the father of Harisiṁha. Deolia is referred to in these inscriptions as Dēvadurga or Dēvagaḍha. Of the four inscriptions from the Sirohi State two are only Jaina votive and are engraved on the backs of the images of Śāntinātha. Of the other two, both of which are found on a memorial stone in the cenotaph of *Mahārāja* Udayabhāṇa of Sirohi, one records that the consecration ceremony of the cenotaph was performed on Thursday, the 7th day of the bright half of Vaiśākha, Āshāḍhādi Saṁvat 1737 and Śaka 1603. The other records that the image of Kalyānasiṁha was also set up there on the same date. The details of the time of consecration are given in the first inscription and the date agrees with Thursday the 14th April, A.D. 1681. Rai Bahadur Ojha has pointed out that Udayabhāṇa and

Kalyāṇasiṁha were respectively the eldest son and grandson of *Mahārāo* Akhērāja of Sirohi. It is stated in the Rājasamudra inscription that when Udayabhāṇa imprisoned his father and became the ruler of Sirohi, *Mahārāṇā* Rājasiṁha of Udaipur sent an army in Saṁvat 1720 (A.D. 1663) under Rāmasiṁha who restored the kingdom to Ākhērāja. Soon after this Ākhērāja killed both his son and grandson.

Government Museum, Madras.

The Superintendent reports to have acquired ten inscriptions for the Museum during the year. Of these nine are copper-plate grants and one is a stone inscription. Most of these inscriptions have either been noticed before or belong to the late Vijayanagara period and do not contain any important information. Moreover, two of the copper-plate records are spurious. The only set of copper plates which may be mentioned here, is a record of the Eastern Gaṅga king Ananatavarman Vajrahasta III, son of Kāmārṇava. Its language is Sanskrit and it is dated *Saka 991 Āshāḍha su 7 Monday*, which corresponds to Monday, 9th June, A.D. 1068. The object of the record is to register the gift of the village Navagrāma in Varāhavarttinī-*vishaya* to Gōkana-Nāyaka, son of Bhīmana-Nāyaka and grandson of Mallapa-Nāyaka.

Watson Museum of Antiquities, Rajkot.

The Curator informs me of the discovery of three sets of copper plates, one of which is comparatively modern being dated Saṁvat 1758 and written in Gujarātī language and is therefore not considered here. Of the other two, one consisting of two plates, belongs to the Valabhī king Dharasēna II and records the grant of the village Vāṭānaka included in the [Vā]naka division, to two brothers Amaraśarman and Anuhaśarman. The Curator is not certain of the reading of the date which may be 252 or 262 of the Gupta-Valabhī era. These plates are now in the Watson Museum. The second is only a fragment of a copper-plate grant of Dhruvasēna I and is said to have been secured by Prof. H. B. Bhide from an artisan at Talāja in the Bhāvnagar State. The grant was issued from Valabhī.

Kāmarūpa Anusandhāna Samiti.

The Honorary Secretary of the Society reports the collection of two inscriptions. One of them which is engraved on a stone slab, is dated Śaka 1672 and is connected with a temple in Gauhāti. The other is said to be engraved on a heavy stone, hewn to a square shape, collected from the ancient ruins at Numaligarh in the Sibsāgar district of Assam. It consists of a few letters in early characters of which no sense can be made out.

MOSLEM EPIGRAPHY.

By Mr. G. Yazdani.

During the year under report some thirty new inscriptions were discovered, and it is gratifying to note that the texts of all of them have been deciphered and they are being translated into English for publication in the next number (1935-36),

of the *Epigraphia Indo-Moslemica*. Of these inscriptions eleven were found at Kalyānī, the capital of the Western Chalukyas, one at Gornallī in the Bidar District, three at Gulbarga, two at Golconda and thirteen in the City and suburbs of Hyderabad. Among the epigraphs of Kalyānī two belong to the reigns of G͟hiyāt͟hu'd Dīn Tug͟hluq (1320-25) and his illustrious son, Muhammad (1325-51). The former king never visited the Deccan but his son prince Ulug͟h K͟han, who after his accession assumed the title of Sulṭān Muḥammad Tug͟hluq, led two expeditions to the Deccan during the administration of his father. According to Firis͟hta, Ulug͟h K͟hān in his second expedition invaded Bidar which was an important outpost of the Kākatīya kingdom. In his march from Deogīr (Daul atabād) to Bidar Ulug͟h K͟hān captured the various fortresses which came in his way and, although the conquest of the fort of Kalyāṇī is not mentioned by Firis͟hta, the discovery of an inscription of G͟hiyāt͟hu'd Dīn Tug͟hluq S͟hāh and the date 1323 given therein, which corresponds with the year of Ulug͟h K͟hān's capture of Bidar, leave no doubt that Kalyānī was one of the forts which surrendered to Ulug͟h K͟hān during this expedition. Muḥammad Tug͟hluq seems to have been fond of setting up inscriptions at the places which he conquered and it is interesting to note that the six new inscriptions of this king, which have been found in recent years[1], mark with some degree of precision the extent of the country conquered by him—ranging from Rajahmundry in the East, covering the entire plateau of the Deccan and extending up to Konkan towards the West. The script used in these records is of a plain bold type which we notice also in early Baihmani inscription. out later the influence of Persia upon the Deccan made the writing more ornamental and stylised.

The nine inscriptions of Kalyānī belonging to the Bijapūr Kings are interesting as they throw light on the political history of the place under these rulers and also furnish an authentic record of the additions which the 'Adil S͟hāhī monarchs and their governors made to the defences of the Kalyānī Fort at different periods.

The inscription found at Gornallī in the Bidar district is dated 1010 H. This record is important as it contains the word ثانی (second) after the title of king Amīr Barīd, which is not to be found in contemporary history and the omission of this word has caused some difference of opinion as to the exact title of the first ruler of this name among scholars. Those who have relied exclusively on contemporary history have mentioned his title as Amīr 'Alī Barīd and not Amīr Barīd which is confirmed (although indirectly) by the discovery of the present inscription as also by the legend of a copper coin[2] found in the cabinet of the Hyderabad Museum a few years ago.

Among the inscriptions found at Golconda one is carved on a gun which was manufactured at Asir in 1673, but was afterwards removed to Golconda by Aurang-zeb when he besieged the latter fort in 1687. The gun bears the name of Aurang-zeb as well.

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[1] They have been discovered at Rajahmundry, Bodhan, Kalyāni, Gogī and Rakkāsgi (Bijapur District).

[2] A note on this coin is published in the *Annual Report* of the Archæological Department, Hyderabad, for the year 1930-31, p. 50. There is a Ms. in the library of the Asiatic Society of Bengal which also has the word ثانی after the name امیر برید showing that there was a previous monarch of this name in the dynasty.

The inscriptions discovered in the City and suburbs of Hyderabad are interesting from an artistic point of view as they represent *Thulth* and *Naskh* writings of a high order. Hyderabad until recently was noted for the allied arts of seal engraving and stone calligraphy but as the masters of these arts came from Persia, the decline of these arts was inevitable when such professionals ceased to come to the Deccan.

In addition to the study and critical examination of the above thirty new inscriptions, I have also deciphered the texts and prepared the translations of the twenty-five inscriptions of Surat, Broach, Junnar and Ahmadnagar which the Director General of Archæology in India had sent me at the request of Dr. M. Nazim. An article dealing with these inscriptions is included in the ensuing number of the *Epigraphia Indo-Moslemica.*

During the year under review the publication of Moslem inscriptions has been further pushed by the compilation of a Supplementary number to the issue of *E. I. M.* for 1933-34. In this number Dr. M. Nazim has dealt with seventy-five inscriptions of Western India which, although edited before by other scholars, were included in such publications as were not easily accessible to students and further the texts and translations given by previous editors were not free from mistakes. Dr. Nazim's edition of these inscriptions will prove useful to students for they will be able to study these inscriptions collectively and to trace the history of Moslem Epigraphy in its various aspects.

SECTION IV.—MUSEUMS.

INDIAN MUSEUM, CALCUTTA.

By Mr. N. G. Majumdar.

A shouldered copper celt, which had been found some years ago at KUSHAYA in the District of Monghyr and came into the possession of Dr. Girindranath Mukherji of Calcutta, was acquired from him for the Prehistoric Gallery of the Archæological Section. It is similar to the copper celt from Pachamba (Hazaribagh District) in our collection, but considering its thick edge it is doubtful if it was ever used as a celt. Possibly it served the purpose of a votive tool having the significance of a purely cult object, and may actually or may not have belonged to the prehistoric age.

The Museum acquired by presentation a group of terracotta, pottery and beads from Mr. B. N. Roy of Puri. These were found in course of his diggings at SISUPALGARH near Bhuvaneswar, and are referable to the Maurya or Śuṅga times. Plate XXIII, 3 which reproduces certain selected objects out of this lot shows a number of terracotta model ornaments, *viz.*, circular pendants with figures of short-horned bull and elephant in relief, ring-shaped pendants decorated with spiral and other motifs, and discoid pieces bearing floral motifs on both faces. The treatment of the bull definitely suggests an early date. Another early-looking piece belonging to this group is the fragment of a toy wheel. A narrow-mouthed vase with incised strokes along the body was found along with these objects. The beads, some of which appear in Plate XXIII, 5, are of semi-precious stones like agate, cornelian, etc., and include the early barrel-shaped type. Although nothing can be said definitely from these chance finds, the Site of Sisupalgarh appears to be quite promising and needs thorough exploration.

Of the additions to the Sculpture Gallery the earliest is a relief from MATHURA of the 2nd-3rd century A.D., showing the seated figures of Kubera and Hāritī attended by a number of devotees (Plate XXIII, 1). Kubera, who is pot-bellied, carries in his left hand a wine cup. Probably of a somewhat later date are three stucco heads of Buddha of the Gāndhara school said to have come from the Khyber Pass, of which two are seen in Plate XXIII, 6.

The sculptures of Bengal and Bihar have hitherto been displayed together, and up till now there were very few interesting pieces of the Bengal School in the collection. Although there are many common elements between the two schools, as could naturally be expected, there are yet many features that clearly distinguish the one from the other. It seemed, therefore, justifiable to exhibit the products of the Bengal school separately on a strictly regional basis, and this was carried out during the year in two bays of the Museum specially reserved for the purpose. As the collection of Bengal sculptures in the Museum was extremely poor, efforts were also made to add a number of typical

specimens to it. The most notable acquisitions in this connection were a group of eight sculptures from North Bengal, comprising one brass and seven stone images, kindly purchased for and presented to the Museum by Dr. B. C. Law of Calcutta.

The earliest sculpture of this collection is an image of Vishṇu of the Trivikrama order (Plate XXIV, *e*). Particularly noticeable are the plastic qualities of the central figure and of the two attendants, Śrī and Sarasvatī, as also of the decorative elements on the back slab. Some of the decorative details, for instance, the two horned lions trampling on elephants, the flying Viyādharas and the Kīrttimukha show the characteristic boldness and vigour of early Pāla workmanship. Among other early features may be mentioned the round upper part of the back slab, the twisted rope pattern encircling the halo, the shape of the *Kirīṭa* which has not yet become pointed and is without the later *āmalaka* ornament, the separate plastic layers at the back of the attendant deities, their roundish head-dress, and lastly, the elegant treatment of the garland (*vanamālā*) and other ornaments of Vishṇu, as well as that of his lotus seat. The lotus is carved in varying reliefs; the foliated scroll-work on the pedestal of the image, on the two sides of the stem of the lotus, has developed out of a pattern that occurs on the Vishṇu image from Rudarpur in Bihar, assignable to the post-Gupta period.[1] In the Vishṇu sculptures of the late Pāla period there usually appear, in place of the scroll-work, two lotus-buds in relief. In point of style and treatment the Vishṇu image under reference belongs to the same class as the Baghaura image of Vishṇu of the time of Mahīpāla[2], the former probably different representing a slightly earlier phase dating from about the middle of the 10th century.

One of the sculptures of Dr. Law's collection is a figure of Kārttikeya seated on the back of a peacock, the peacock itself standing on a lotus (Plate XXIV, *d*). The graceful attitude and the feeling of calm repose as well as the dreamy eyes of this figure, mark it out as a remarkable specimen amongst the products of the Bengal school of art, although on grounds of style it should be assigned to a date as late as the twelfth century. Evidently to the same period must also be attributed the five other pieces of Dr. Law's collection *viz.*, a dancing Gaṇeśa, an Umā-Maheśvara, a combined representation of Brahmā-Vishṇu, a Kāmadeva and a figure of the Buddhist deity Saṁvara. The *vāhana* of Gaṇeśa is a mouse resting on a lotus (Plate XXIV, *a*). In this respect the sculpture differs from I. M. No. 5625 which comes from Bangarh in Dinajpur District. In the latter, Gaṇeśa performs his dance directly on his lotus seat and not on the back of his precarious *vāhana*, the mouse. In Kāmadeva the artist has cleverly depicted the coquettish smile, but the bow and arrow are disproportionately long and heavy, and these seem to detract from the beauty of the sculpture. The combined representation of Brahmā and Vishṇu, although crudely executed, is unique from the point of view of iconography. Of the four faces of Brahmā three are shown, and his characteristic attributes, rosary, ladle, etc., are also present. Of

[1] *A. S. R.*, 1906-07, p. 195 and Pl. LXXIV, *a*.

[2] R. D. Banerji, *Eastern Indian School of Mediæval Sculpture*, Pl. IV. *d*.

the distinguishing marks of Vishṇu, there is his *vanamālā*, and on the two sides of the central figure are the standing figures of Śrī and Sarasvatī, and also the *Ayudhapurushas*, who personify the conch (*śaṅkha*) and the wheel (*chakra*) respectively. On the pedestal there are again the two *vāhanas*, the goose of Brahmā and Garuḍa of Vishṇu. The *Āyudhapurusha* figures, which are rather clumsily executed, carry their respective emblems on the head. This detail is somewhat vaguely represented here but is quite clear in other examples of Vishṇu in the Museum. It occurs neither in the Vishṇu image mentioned above nor in the image of the same deity from Baghaura, but is characteristic of the examples of the later Pāla period.

From a purely iconographic point of view the image of Saṁvara deserves particular mention (Plate XXIV, *c*). Representations of this deity are well-known in the Buddhist cult of Nepal and Tibet, but are of extreme rarity in India. In the present figure three heads of the deity, instead of four, are shown, and he has twelve arms of which the two original ones are crossed on the breast, holding a thunderbolt and a bell in the attitude known as *vajra-huṁkāra*. He is standing in the *ālīḍha* posture: the right leg is stretched out fully in a slanting fashion, while the left one is bent at the knee. The heads bear matted hair, the front one having three eyes. In the hands of the deity we can recognize a long magic wand with skulls at the upper end known as the *khaṭvāṅga*, the *ḍamaru*, skull-cup, etc., and the multi-faced head (of Brahmā). The details tally with those of Saṁvara as given in the *Sādhanamālā*[1] and with the description by Alice Getty,[2] excepting that there is total absence in this sculpture of the prostrate figure or figures which Saṁvara is supposed to trample beneath his feet. Above his head appears a four-armed female standing in the same pose as Saṁvara, and this figure is repeated thrice below, between the legs of the central figure and at the sides. The attributes in her hands are not very clear, but she seems to carry a *kartarī* or knife and a staff, in the lower right and lower left hands respectively. In all likelihood she is *Vajravārāhī*, the *śakti* of Saṁvara.

Among other stone sculptures deserving of notice is an image of Vishṇu with the *Avatāras* depicted on the back slab, which comes from the Rajshahi District, and an elaborately carved door lintel from near Salar in Murshidabad District. On the lintel are carved six replicas of temple, each containing a figure, *viz.*, Lakshmī, two ascetics, two female worshippers, and Śiva Lakulīśa as on the Bodh Gayā lintel of the reign of Dharmapāla in this Museum.

Two bronze figures added to the collection are exceptionally good examples. One of them is a representation of the Serpent Goddess Manasā from the Rajshahi District, presented by Dr. Law, which shows fine modelling (Plate XXIV, *b*). Some semi-precious stones seem to have been originally set in the image, but most of these are now missing. In artistic qualities this figure of Manasā far surpasses the stone representations discovered up till now, and it probably belongs to the early Pāla period. The other bronze, which comes from the Puri District in Orissa, represents the Jaina saint Ṛishabhanātha (Plate XXIII, 4).

[1] Bhattacharya, *Buddhist Iconography*, p. 65.

[2] *Gods of Northern Buddhism*, p. 127 and Pl. XLVII, c.

The Moslem Gallery was enriched by a small collection of Persian 'lustred' tiles dating from the thirteenth and fourteenth centuries (Plate XXV). These belong to Rhages and Sultanabad, the ceramic remains of which sites are well represented in the British Museum,[1] the Louvre and other European collections, but so far had been totally unrepresented in the Indian Museum. The city of Rhages or Ray, as it is sometimes called, which is about 5 miles south-east of Teheran, was once the centre of the ceramic industry of Persia. It rose to power under the Abbaside Caliphs and was later destroyed by the Mongols in 1220 A.D. Sultanabad, which is situated between Kum and Hamadan, was also a well-known city of this period. Another noteworthy place was Veramin which has yielded some of the finest examples of lustred tiles. The specimens from Rhages and Sultanabad in the Indian Museum collection are star-shaped and eight-pointed, and made of a sandy white paste. They bear a coating of creamy opaque glaze over which designs are painted in golden brown lustre with metallic reflections, and in blue. The latter colour appears in varying shades, generally in the marginal bands. The designs include floral patterns, and also figures of man, birds, hares, mountain goats or gazelles, leopards, horses and so on. In so far as the representations of living beings are concerned, the Persian tiles offer a piquant contrast to those of India. On the latter the decorative scheme is generally in the strict orthodox fashion which would not tolerate anything but purely geometric and arabesque patterns. The tiles under reference frequently bear quotations from the Quran (*e.g.*, No. 9088, Plate XXV ; Quran, Ch. 113) and also Persian verses in glorification of Ali, the son-in-law of the Prophet. These are written in ruby brown along the margin of the tiles. Among similar tiles in other collections are some on which dates in Hijra are recorded, *e.g.*, one corresponding to 1209 and another, to 1217 A.D.[2] There is therefore no doubt about the age of the tiles now acquired. These 'star-tiles', as they are usually called, were used in combination with cruciform ones for the decoration of walls. The highly artistic effect which a group of lustre tiles would produce may be judged from a panel in the Louvre.[3] There is no doubt that the original colouring of the tiles has been greatly affected by wear and tear, but in view of what remains they are still of interest to the connoisseur. There are also a few frieze tiles in the collection on which there occur quotations from the Quran in raised blue letters against a golden brown lustre ground, while the field is taken up by scroll-work in white[4] (Plate XXV). These pieces are assignable to the early part of the 14th century. A rare specimen of lustre pottery was also received in the Museum along with the collection of tiles. This is a flat dish from Rhages having the figure of a lion cub painted in the centre on deep blue glaze (Plate XXV, 1).

Two copper-plates appertaining to a deed of land grant were acquired from Puri, of which a third sheet completing this set had come years ago into the possession of

[1] See Hobson, *A Guide to the Islamic Pottery of the Near East*, pp. 95 ff.

[2] *Persian Art at Burlington House, London*, 1931, fig. 174F : Wallis, *Persian Ceramic Art in the Godman Collection*, p. 25 and Pl. I.

[3] Pope, *An Introduction to Persian Art*, 1930, fig. 30. For coloured illustration see Wallis, *loc. cit.* and *Faience of Persia and the Nearer East*, Burlington Fine Arts Club, 1908, Pl. X.

[4] For coloured illustration see *Faience of Persia and the Nearer East*, Pl. VI.

the Varendra Research Society and in now deposited in its Museum at Rajshahi. The document was issued by the Śailodbhava king Mādhavavarman (Sainyabhīta II) from Koṅgoda. It records a grant of land to Bhaṭṭa Vittadeva, a Brahman of the Kauśika *gotra* who was an immigrant from Sālagrāma (or Mālagrāma) in the Thoraṇa *vishaya*.

In all 184 coins were added to the cabinet of the Indian Museum, some of which deserve special mention. A group of 10 silver punch-marked coins from Mathurā were received in exchange (*e.g.*, Plate XXIII, 2). These bear symbols punched on both sides.[1] The symbols on the obverse are fewer in number, but boldly executed, while those on the reverse are more numerous and minute. Two of the symbols appear to be peculiar to this series, *viz.*, a single spiral, and an U-shaped double spiral looking somewhat like the Egyptian double-headed serpent symbol. A humped bull is visible on the coin in Plate XXIII, 2. One of the cast coins is of special interest. It is a single-die coin showing a female with a fly-flap in one hand, standing between a pile of five balls and a three-arched hill symbol. The reverse of this coin is quite plain (Plate XXIII, 2). It is an extremely rare type, being known so far from a single specimen illustrated by Cunningham[2]. Another cast coin, which is equally rare, shows on the obverse two human figures standing to front, the reverse side bearing only the so-called 'Ujjain' symbol (Plate XXIII, 2). Among the fresh acquisitions there is a group of eight cast coins, each bearing two symbols, *viz.*, a three-arched hill with crescent above and a symbol resembling the letter *go* in Brāhmī script (Plate XXIII, 2). These two symbols occur invariably, and on both sides of the coins. Similar pieces have been discovered in the excavations at Taxila.

Reference has been already made to the rearrangements undertaken in the Sculpture Gallery of the Archæological Section in order to exhibit the sculptures of Bengal together in one group. In the same Gallery other important works were also taken up in connection with the display of small stone sculptures and bronzes, which up till now had not been exhibited properly or exhibited at all. During the year under report eight free-standing cases were provided for the purpose by the Director General of Archæology in India, which were placed in a row running east to west along the centre of the hall. The arrangement of objects in these cases is in progress and is expected to be completed during the next financial year. Two other small cases were also provided for the Coin Room of the Museum, and two larger ones placed at the disposal of the Zoological Survey of India for the preservation of the skeletal remains recovered from Harappa and Mohenjo-daro.

The godowns of the Archæological Section contain a large surplus stock of sculptures which had been hitherto lying on the floor without any sort of arrangement. During the year under review masonry benches were erected in the godowns with a special grant sanctioned by the Director General of Archæology in India. The sculptures were arranged on these benches, according to

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[1] For the symbols on punch-marked coins from Mathura see Durgaprasad, *J. A. S. B.*, Vol. XXX (1934), No. 3, Pl. 31.

[2] Cunningham, *Coins of Ancient India*, Pl. II, 14.

localities, and some of the more important pieces were taken out and exhibited in the galleries of the Museum.

TAXILA MUSEUM.

By M. N. Dutta Gupta.

During the year 567 antiquities were added to the collection consisting of 50 metal objects, 269 terra-cotta and pottery, 49 stone objects, 3 stucco sculptures, 104 shell and bone objects, 60 beads and gems, 10 glass and miscellaneous objects and 22 coins including 2 of silver. One of the silver coins is that of a Roman Emperor and another of Azilises while the rest are of copper belonging to Azez I and II, Kadphises, Vasudeva, Sassanian and local Taxilan. Among the antiquities enumerated above, mention may be made of the following:—

(1) A globular vase-shaped relic-casket of schist. Ht. 3.2". It contained one plain gold casket diam. .75" with decayed fragment of bone, a shield-shaped gold ornament, 2 beads, a number of tiny pearl beads and the two silver coins referred to above.

(2) A capital of a pillar made of talcose mica schist depicting four elephants standing back to back on a circular base. Ht. 8.25". A draped Nike standing on shoulder of each elephant and a winged bird in between. This is the only specimen of an elephant capital found at Taxila.

(3) A copper finial in the form of a complete *Dharmachakra* on crescent base and surmounted by three wheels. Ht. 7". Both sides decorated with the same lineal pattern.

(4) A lower portion of an earthen bowl-shaped casket on four legs in the form of 4 elephants carrying the vase on their shoulders, Ht. 2.25".

Under the instructions of Sir John Marshall who has been working on his monograph on Taxila, I checked some 12,000 coins and revised the Catalogue of coins accordingly. I also prepared three separate lists of the coins collected between 1912, the year of the commencement of the excavations, and 1934, *viz.*, (1) of coins found in groups, (2) of coins found at the various sites according to their kings, types, etc., and (3) of the rare and unique coins found at Taxila up to the end of the year 1934.

Listing of the unexhibited antiquities has been taken in hand.

The sum of Rs. 1,550-14-6 was realized from the sale of admission tickets and photographs.

SARNATH MUSEUM.

By Mr. M. H. Kuraishi.

Owing to there being no excavations there were no new acquisitions to this Museum. The Director General of Archæology presented on loan 69 sculptures for exhibition to the Municipal Museum at Allahabad.

TAJ MUSEUM.

By Mr. M. H. Kuraishi.

The Director General of Archæology gave on loan for exhibition a *sanad* issued under the seal of Syed Amjad Khan, Sadr-i-Jahan, dated the 19th Rabi I, 1122 A.H. (1710 A.D.) of the 5th year of the Emperor Shah Alam's reign, granting 10 *bighas* of arable land in the village Okhra, Pargana Haveli, belonging to the Taj Mahal, to one Musammat Abida Khanam and her sons for their livelihood. The *sanad* was purchased by the Director General.

DELHI FORT MUSEUM.

By Mr. M. H. Kuraishi.

Four paintings of Indo-Persian art of the 16th century, two *sanads* dated the 6th and 29th years of the reign of Shah Alam II, a royal mandate dated 1174 A.H. (1760 A.D.) issued under the seal of Prince Jawan Bakht Bahadur, an album containing 10 prints of Major Turnbull's Delhi sketches and a manuscript of the Tuzuk-i-Timuri in Persian with 19 coloured illustrations were received on loan from the Director General of Archæology. A specimen of calligraphy written by Muhammad Arif Yaqut Raqam Khan was purchased for the Museum.

The coin cabinet was enriched by the addition of one gold and 8 silver coins received on loan from the Director General of Archæology and 82 coins, comprising 30 gold, 48 silver and 4 copper, presented by local Governments, Durbars and Societies.

LAHORE FORT MUSEUM.

By Dr. Mohd. Nazim.

During the year a coloured print "The Battle of Sobraon" was purchased and added to the collection of similar prints in the Museum.

MUSEUMS IN BURMA.

By U. Mya.

An inscribed stone sculpture and some bricks with old numeral symbols stamped on them which were discovered at Hmawza (old Prome) have been placed in the temporary Museum west of the old Palace site. No fresh acquisitions were made for the other archæological museums.

CENTRAL ASIAN ANTIQUITIES MUSEUM, NEW DELHI.

By Dr. M. A. Hamid.

A considerable improvement was effected in the arrangement of the Central Asian Antiquities exhibited on the first floor of the Imperial Records Building.

By closing the four open arches of the corridor on the west with glazed teak-wood doors and windows and fixing iron grills and collapsible gates on the top of the two staircases the wide corridor has been made available as an exhibition hall. Twelve table show cases taken on loan from the Imperial Record Department have been suitably arranged in this new hall and three of them have been utilized for exhibiting the antiquities acquired by Mr. N. G. Majumdar during his explorations in Sind and in one are displayed the stone and metal objects unearthed by Mr. Hargreaves from Nāl in Baluchistan.

About 1,013 antiquities including pottery, glass and shell objects recovered by Sir Aurel Stein from North and South Baluchistan were chemically treated in the Museum.

SECTION V.—OFFICER ON SPECIAL DUTY.

Sir John Marshall, Officer on Special Duty, left India on the 15th March 1934, and remained on duty till the 31st December 1934. During this period he corrected proofs of his forthcoming Monograph on the monuments at Sanchi and did preliminary editing of the Monograph on Harappa, which is being written by Mr. M. S. Vats. He has revised his Guide Books to Sanchi and Taxila, which are in the press and is engaged in writing a Monograph on the excavations at Taxila. His special duty was suspended from the 1st of January 1935.

Dr. C. L. Fábri, who had been Secretary to the Editorial Board and Co-editor of the Annual Bibliography of Indian Archæology, published by the Kern Institute, Leyden, was appointed officer on Special Duty for a period of eight months from January 1935 to edit a consolidated report of the Annual Reports of the Archæological Survey, which were in arrears by four years, *i.e.*, from the year 1930-31 to 1933-34.

SECTION VI.—ARCHÆOLOGICAL CHEMIST.

The antiquities which were sent to the Archæological Chemist for cleaning and preservation during this year, amounted to 942. Most of these consisted of objects which had been recently recovered from our excavations at Mohenjo-daro, Harappa, Nalanda, Theh Polar (Karnal District) besides others from the Museums at Delhi, Sarnath and Calcutta. The work on the overhauling of the Mughal paintings in the Delhi Fort Museum, was also resumed in the cold season, so that 92 more of these were properly preserved and remounted, as before, thereby completing the treatment of the bulk of the collection which is exhibited in the East Gallery.

Thirteen specimens were sent to him by the Archæological officers for chemical examination and report, but in addition to these, several objects from Harappa had also to be examined or analysed in connection with Mr. M. S. Vats' special Memoir on his excavations at that site, which is now in course of preparation. These include three interesting implements of copper and bronze having the following composition :—

Analyses of copper objects from Harappa.

—	Lance head No. 277 $\frac{e}{2}$.	Needle No. 11859.	Dagger No. 4255.
	1	2	3
Copper	98·69	92·55	91·87
Tin	0·10	0·29	6·42
Arsenic	0·68	2·96	0·26
Antimony	..	..	..
Lead	tr.	3·72	0·98
Nickel	0·40	0·21	tr.
Iron	0·13	0·20	0·47
Zinc	..	0·07	..
TOTAL	100·00	100·00	100·00
Remarks	Unaltered metal	Unaltered metal	Completely oxidized metal.

The first, a lance-head, is of practically pure copper, but contains both the key elements, arsenic and nickel, which are characteristic of the Indus metal. The second is a needle, alloyed with rather unusual proportions of lead and arsenic, which are probably natural impurities and not intentional additions, and, therefore, might serve as clues in locating the source of the original copper ore. The third is a dagger containing 6·42 per cent tin which is rather significant as a number of other implements of this class which have been analysed, also contain 6-7 per cent tin. However, the question of how the ancients made these bronze implements has naturally aroused considerable interest. Were these simply cast in an approximate form and finished subsequently, by trimming and grinding with abrasives to obtain the desired shape? Or, were the castings re-heated,

or annealed, and hammered down to attain this object? It is obvious that the latter alternative would imply considerable practical experience and knowledge of the properties of bronze. In order to verify this point, a bronze chisel and a celt, containing 10·45 per cent and 7·85 per cent tin respectively, were sent recently to Mr. E. A. Wright, Metallurgical Inspector, Indian Stores Department, Tatanagar, for microscopic examination and his expert opinion. He has arrived at the conclusion that 'the chisel was probably cast and subsequently heated and hammered until it reached a low temperature'; while 'the celt was also cast but did not receive any form of heat treatment, although a certain amount of cold work may have been effected on the specimen'. It should be mentioned that cold forging also served to intensify the hardness of the cutting edge of the celt. It is, therefore, obvious that the Indus people were highly skilled craftsmen and were well versed in working bronze in hot and cold states.

A specimen of mortar employed for pointing on a wall at Mohenjo-daro which was sent by Rai Bahadur Daya Ram Sahni for examination, was found to contain 72·3 per cent gypsum free from lime. This along with another sample of pointing material from the same site (containing 60 per cent gypsum) was sent to Dr. H. J. Plenderleith of the British Museum, London, for his valuable opinion and he has confirmed the Archæological Chemist's view that the material consists of gypsum which has been employed as mortar.

Four specimens of ancient pottery from Shah-i-Tump, Baluchistan (which have a characteristic overburnt appearance) have been analysed also and the results leave no doubt that their grey colour is due to the presence of black ferrous oxide which has been produced by the action of the reducing gases in the kiln. A glance at the following table will show that the composition of the last three samples, in particular, varies but slightly except that the iron in the grey ones has been partly reduced to the ferrous state.

Analyses of pottery specimens from Shah-i-Tump (Baluchistan).

—	Colour.			
	Grey.	Grey.	Grey.	Red.
	1	2	3	4
SiO_2	57·32	61·67	61·30	61·34
Al_2O_3	17·79	17·83	16·40	17·48
Fe_2O_3	2·52	3·02	4·31	8·05
FeO	4·99	4·61	5·88	*nil.*
TiO_2	1·01	1·02	1·08	1·12
MnO	0·16	0·09	0·13	0·07
CaO	8·16	2·66	2·34	2·42
MgO	1·76	4·03	3·73	4·43
K_2O	3·06	3·28	2·88	3·19
Na_2O	0·87	1·12	1·72	1·12
H_2O	1·94	1·94	1·45	1·18
Total	99·58	101·27	101·22	100·40

It is well known that the Bombay Presidency contains numerous ancient cave-temples, which have been carved out of the live trap rock of the Western Ghats. Their outer portions generally present a much decayed appearance on account of their exposure for centuries to the action of the heavy rains. Many of these were discovered choked up with drift earth and *débris* and were flooded by the access of water either from outside or by percolation from the rock inside, with the result that the interiors of these temples also have suffered heavily through sub-aerial weathering. Moreover, some of these monuments are situated so near the sea that they have been subjected to further deterioration due to the action of sea-salts. During the year under review attention was drawn to the serious conditions prevailing in the rock-cut temples at Jogeshwari and the Elephanta Island, situated near Bombay, by Mr. M. S. Vats, the Superintendent of Archæology in the Western Circle. The Archæological Chemist was, therefore, deputed, in December 1934, to visit these monuments and report on their present condition as well as to suggest measures for their preservation. The Archæological Chemist has made some important and far-reaching observations, and it will be worth while to reproduce portions of his report. Regarding the action of the sea-salts, he writes: "The chemical examination of the decaying rock at Jogeshwari and Elephanta Island has revealed the presence there of appreciable amounts of sea-salts, which indicates that the extensive destruction in the interior of the former temple is due to the crystallization of the salts. There is no doubt that the whole rock is saturated with sea-salts, which gradually concentrate at the exposed surface and crystallize there under favourable atmospheric conditions. The soft portions of the rock (*i.e.*, the seams and deposits of ash or tuff) succumb to the action of the salts most readily. The rock at Jogeshwari is particularly rich in faults of this kind which account for the advanced state of destruction all over the monument. The sea-salts are also present in the air near the coast and may be carried far inland by the winds. Therefore, it will not be surprising to find evidence of decay due to this agency on the hills in the interior of the Peninsula. The presence of sea-salts on the sculptures at Elephanta Island has been proved and these are, therefore, responsible for the decay which has been going on inside the caves. Other salts (*e.g.*, sodium sulphate and saltpetre which sometimes occur in the soil) also bring about the decay of stonework, but these have not been detected at the monuments mentioned above". Regarding other chemical changes which are taking place in the rock he observes :—"The processes of hydration, carbonation, oxidation and alteration of carbonates into sulphates, are accompanied by great increase in volume, and if these happen to be of a local nature, the pressure exerted thereby is sufficient to shatter the rock. The splitting up of the lower portion of the head of the central Trimurti figure in the great cave at Elephanta Island, is undoubtedly due to changes of this nature, which have been going on inside. Splitting of the rock is evident at several other places in this temple as well as in others. In fact, complete disintegration of certain rocks might take place by the processes of oxidation and hydratioo alone". Regarding the guano deposited by birds, he adds :—"The presence of bats and pigeons in some of these monuments is objectionable not only on account

of the offensive smell which they create there, but also of their guano which disfigures the interior. Moreover, their excreta is rich in ammonium salts which may undergo alteration into the injurious nitrates, under favourable conditions ". Finally, the Archæological Chemist recommends the following preservation measures :—

(*a*) Providing chhajjas over the front or exposed portions of the temples, for protection against rain waters.

(*b*) Diversion of overflowing or percolating waters, far away from sculptures or important parts, by means of dripping channels, pipes, etc.

(*c*) Prevention from sculptures of excessive dampness, etc., by waterproofing applications.

(*d*) Consolidation of decaying parts by impregnation with suitable materials.

(*e*) Periodical cleaning of the surface with brushes or jets of air to remove salt laden dust. This should be followed by (*f*).

(*f*) Periodical washing out of salts from the affected parts, by means of water jets.

(*g*) Repair of the broken sculptures by means of a stone cement (*e.g.*, Meyer's cement).

It may be added that the lower portion of the face of the famous Trimurti figure in the Elephanta Island, which had cracked, severed altogether and fell down a few weeks later. The measures recommended by Mr. Sana Ullah for cleaning and washing the sculptures and restoration of the broken figure are now in progress under the personal supervision of the Superintendent of Archæology.

The Archæological Chemist also inspected the recently discovered Asoka inscriptions at Yerragudi in Kurnool District (Madras Presidency) which have been described in the Archæological Survey Report for 1928-29. He reports that the inscribed surface of the rock, which consists of hornblendic gneiss, has undergone serious deterioration which is due to the prolonged action of the following agencies :—

(*a*) the solvent action of rain water which acts selectively on the constituent minerals of the rock ;

(*b*) oxidation of the ferrous minerals of the rock ; and

(*c*) the diurnal fluctuations of temperature.

The measures which he has recommended for their preservation consist of, (*a*) the provision of suitable sheds for protection against the rains and direct action of the sun, and (*b*) the coating of the inscribed rock with vinyl acetate.

Curators of several Museums availed themselves of the Archæological Chemist's expert advice on various technical matters.

Mr. Mohammad Sana Ullah has contributed " A Note on the Linear Measures used in the Indus Valley " to the forthcoming Memoir on the excavations at Harappa by Mr. M. S. Vats. He has also published an article entitled 'La conservation d'objects en cuivre deteriores par une ambiance saline' in the ***Mouseion*** (Paris), 25-26, 1934.

SECTION VII.—TREASURE TROVE.

Punjab.—Three finds of coins were reported, *viz.*, (1) 783 *Mohurs* (288 of Akbar and 495 of Shahjahan) discovered in the compound of the Zenana Bible Medical Mission School at Kasur, Lahore District; (2) 1589 billon and 10 silver coins from Ghamrauj, a village in Gurgaon District, and 5 gold coins discovered at Machhrala in Sheikhupura District; (3) 6 gold coins belonging to Kanishka and Vasudeva found at village Shakarkot, Shahpur District.

In regard to the 288 gold *Mohurs* of Akbar referred to above, Khan Bahadur Maulvi Zafar Hasan, Honorary Numismatist to the Government of the Punjab for Muhammadan coins writes "The gold *Mohurs* of Akbar struck at Hajipur and Khitta-i-Kalpi deserve special mention. Hajipur, which was a Sarkar in the Province of Bihar, is not represented as a mint town in any of the printed Catalogues, and this coin is, therefore, rare making an addition to the Mughal mint towns. I should, however, state that the full name of Hajipur is not traceable, but in my opinion it cannot be other than that. Kalpi was a Sarkar in the Province of Agra, and it was a mint town of Akbar, but only silver and copper coins of that Emperor struck in this mint were previously known to exist. The name of the mint on this coin also is not complete. It is only "Khitta" which is clearly readable, and this epithet has led me to think that the unintelligible and the missing portions are *Daru-z Zarb* in its beginning and Kalpi at its end. The full name *Daru-z Zarb Khitta-i-Kalpi* is also to be found on certain copper pieces of Akbar struck in that mint, and I think my reading of the mint name as such is not incorrect.....This *Mohur* is also rare as gold coins are not known to have ever issued from the Kalpi mint".

North-West Frontier Province.—495 silver and 11 copper coins from village Bhutri, Hazara District, were reported.

United Provinces.—The discovery of fourteen hoards of coins were reported, of which two, *viz.*, that from Allahabad consisting of 29 rupees of Queen Victoria's era and another from Gorakhpur consisting of 700 silver coins of Shah Alam II and 8 Murshidabad gold *Mohurs*, were not acquired as they were of no numismatic interest. The remaining twelve finds from Moradabad and Lucknow, which yielded 2 collections each, Rai Bareli, Sitapur, Ballia, Hamirpur, Fatehpur, Unao, Sultanpur and Bahraich comprised 98 gold, 1051 silver and 1480 copper or billon coins chiefly representing the issues of Gangeya Deva of Western Chedi, Govindachandra of Qanauj, the Sultans of Delhi and the Mughal Emperors also included a rare silver coin of Shahjahan III struck at the Shahjahanabad mint. These were recommended for acquisition.

Bihar and Orissa.—Forty silver coins issued by the East India Company in the name of the Emperor Shah Alam II, mint Murshidabad 1219 A. H. (1804 A.D.) were found at Batlaida in Sambalpur District. One coin of Shah Alam II was found along with a number of modern rupees at Mohalla Panchupur in Rosera Town, Darbhanga District. The most important discovery, however, was that of five light cannon (measuring 5′ to 5′ 4″ with 5″ diam.) in the jungle

of Mauza Arang, Police Station Khurda, Puri District. They were acquired under the Treasure Trove Act, 1878, and presented to the Ravenshaw College, where the nucleus of a provincial museum for Orissa is housed for exhibition.

Madras Presidency.—Treasure Trove cases in the Presidency are now disposed of by the Superintendent of the Madras Museum, and the following information is taken from his report :—

Eighteen finds of coins consisting of 249 gold, 512 silver and 181 copper were reported under the Treasure Trove Act. The most important of these comprise :—52 gold Roman coins from Augustus in Faustina Junior found at Nandyal, Kurnool District; 1 Padma-Tanka and 2 Mohurs from Vaddigudem, East Godavari District; 2 pagodas from Nallapureddipalli, Nellore District; 3 Venetian pieces from Kolathupaliyam, Coimbatore District, and 40 Arcot rupees found in Nimina village, Ganjam District. Besides, 126 silver coins belonging to Vijayanagar Kings were found in Nimina village, Ganjam District; 105 copper coins belonging to Chola period of Rajaraja in Vadakandam village, Tanjore District, and 76 Burmese coins from Yellamanchilli, Vizagapatam District.

Of the 22 finds consisting of bronze and stone images, brass articles of worship, stands and *padukos* mention may be made of two bronze images of Valli and Devasena found in Asur village, Tanjore District; 7 bronze images of Vinayaka, Chandikesvara, Manikyavachakar, Balasubramanya, etc., from village Cuddalore, South Arcot District; 8 bronze images of Somaskanda, Ganesa, Bala Subramanya, *Banam*, Rama, Sita, Krishna, Satyabhama from village Manakkal, Tanjore District; 1 stone image of Shanmukha seated on a peacock from Rajahmundry, East Godavari District; 1 bronze image of Ganesa from Arakhandanallur, South Arcot District, and 7 bronze images of Ganesa, Subrahmanya, Devasena, Lakhshmi, Bhairava, etc., from village Thinniam, Trichinopoly District.

The parts of a ceremonial temple brass lamp found in Karindala village, South Kanara District, appear to be very interesting, as these represent a circular oil pan with rings for tassels to hang from a frieze consisting of scenes from the penance performed by Arjuna in order to obtain Siva's bow; a top in the shape of a peacock with the figure of a defiant dwarf below and a knob-like part resembling a *kalasa* with a spout at the base for the oil to trickle down to the oil pan.

Jodhpur State.—Six finds of coins and of nine pieces of gold ornaments were reported in the Jodhpur State under the Treasure Trove Act. They comprise 7742 small silver coins found at Mandore and Chohtan belonging to Arab invaders who invaded Sind in the 8th and 9th century A.D., *viz.*, Abdullah, Muhammad, Al Amir Ahmad, Banu Amrwiya, Banu Abdurahman and Banu Alwiya; 192 silver coins found at Sewari belonging to Shahpur (Bhillwara); 54 copper and 2 billon coins found at Sanchore belonging to Mahmud Shah and Muhammad Shah of Jaunpur. Of the gold ornaments 6 *phools* and 1 pair of earrings found at Sewari were sold, while the 2 pieces of head or ear ornament have been placed in the State Museum.

SECTION VIII.—MISCELLANEOUS NOTES.

THE CRETAN BULL-GRAPPLING SPORTS AND THE BULL-SACRIFICE IN THE INDUS VALLEY CIVILIZATION.

By Dr. C. L. Fábri.

Very little is known so far of the religious beliefs of the prehistoric people who inhabited the Indus region in the third millennium before Christ. A few outstanding facts are easily summarized. The belief in superhuman composite animals is shown in a number of seals and sculptures representing the Taurelephantus, the Sphinx and various taurine creatures, some with several heads. There was also, evidently, a popular myth in which a tiger and the Spirit of a Sacred Tree played important rôles. There is, further, ample evidence for a widespread belief in a Tree Spirit, or rather Tree God, depicted with arms shaped like tree-branches, and crowned by a head-dress consisting of bull's horns and the branch of a tree. Evidently, thus, the Tree God and the Taurine God (The Man-Bull of ancient Crete and the Hittites) were somehow connected. Then we have a large number of figures representing the Mother Goddess, a goddess of fertility. Phallus worship is also evidenced, and there are quite a number of representations of what seems to be Devil Dancers: human beings wearing bull's horns and tails. Finally, there was some legend not unlike that of Gilgamesh or Hercules, *i.e.*, a hero who subdues two lions. The lions, however, have been replaced in India by tigers.

All this is very vague. No temple, no place of worship, no altar have been found. Not a single sculpture, except the terra-cotta figurines of the Mother Goddess and the Taurelephantus, can be pointed out as probable objects of adoration. Any new light, therefore, that may be shed upon the beliefs of the Mohenjo-darians, must be welcome.

Now I believe that I have found a few representations on Indus Valley seals which show a ritual practice that is well known to us from prehistoric Crete. Indeed, the correspondence is so absolute, the agreement shows such a perfect identity in important details, that a separate invention of this ritual seems to me entirely out of question. I allude to the famous bull-grappling and sacrificing of Minoan Crete, known in later times in Thessaly as *taurokathapsia*. This ritual is distinctly divided into two parts, and is represented always separately as such in Crete: (1) the bull-grappling games, and (2) the subsequent sacrifice of the bull to the Mother Goddess. It is as well to add here that the Indus Valley representations agree even in this detail: they also show the two parts of the ritual in separate seals. I shall, therefore, deal with them separately.

The Bull-grappling Games.

Frescoes and reliefs and seals, a large number of which are reproduced in Sir Arthur Evans's *The Palace of Minos at Knossos*,[1] belonging to the Middle

[1] *E. g.*, Vol. III, Plate XIX, figs. 123, 128, 129, 143, 144, 145, 146, 147, Plate XXI, figs. 148, 149, 150, 151, 152, 153, 154 (bronze figure), 157, 158, 159 and many more in other volumes.

Minoan and the Late Minoan Period (*c.* 2500 to 1500 B. C.), show what was first thought to be a mere game of skill but what later proved to be connected with a sacred rite. Out of the numerous illustrations showing bull-grappling games I have chosen three which are representative enough to give a rough idea of this sport.

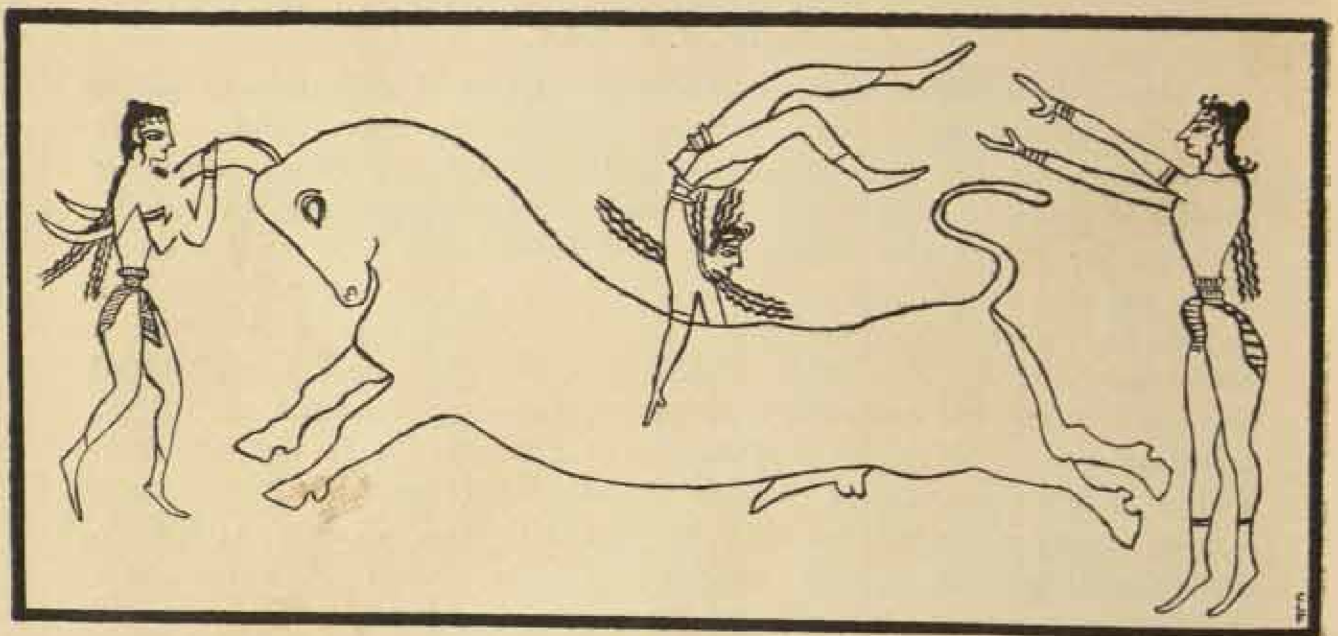


Fig. 1.

Fig. 1 is an outline copy of a fresco painting from the Palace at Knossos, and it dates from before 1500 B. C. It is, thus, not the earliest illustration of bull-grappling, as there are numerous seals going back to much earlier times; but it is the fullest representation of the subject. There are two smart ladies and a male acrobat in the picture: one of the young ladies has caught the horns of the furiously charging bull and is about to be lifted up and make a somersault. Her second position will be the one in which we see the next acrobat: after a somersault she lands on the back of the bull and, gaining new purchase, she will jump off behind the animal where a second lady is trying to make her final landing less dangerous. Nevertheless, this must have been an extremely dangerous sport, and few of us can imagine how anyone can catch the horns of a wildly charging

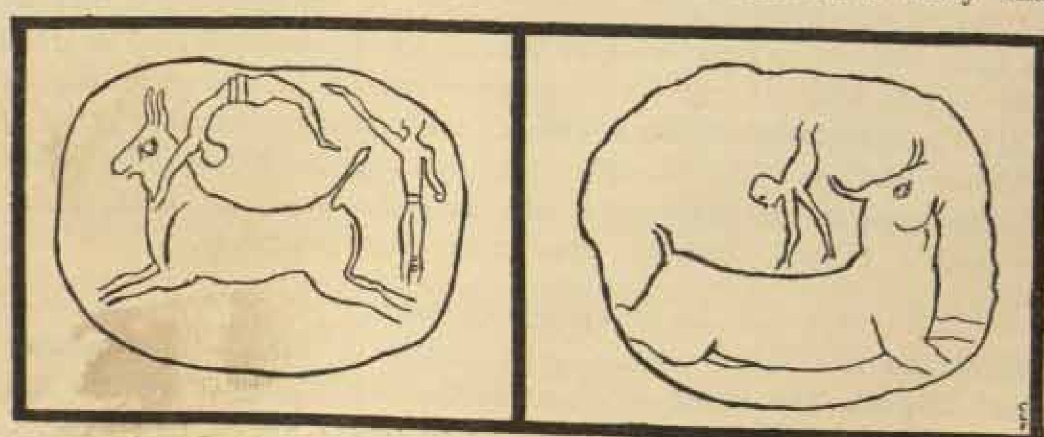


Fig. 2.

bull. As many illustrations show, neither the ladies (always dressed with an imitation male loin-cloth for this game), nor the men were always successful. Several seals show acrobats badly thrown, or pierced by the horns of the bull, or trampled upon.

The clay sealings in fig. 2 illustrate two other ways of landing on the hind quarters of the beast. In the left-hand sealing the man is making a back-somersault and attempts to land with his feet (not hands) on the hind part of the bull. Two other seals reproduced by Sir Arthur EVANS[1] show that this can be achieved. A lady attendant, with outstretched arm, is awaiting the *toreador* in the arena.

In the right-hand illustration of fig. 2 another clay sealing shows a male acrobat landing with his hands on the back of the bull, evidently in order to make another somersault by pushing himself off vigorously.

Now, exactly the same *taurokathapsia* can be seen in a clay sealing (Dk 9281) and a black steatite seal (Dk 8321) found at Mohenjo-daro. In fig. 3 I give

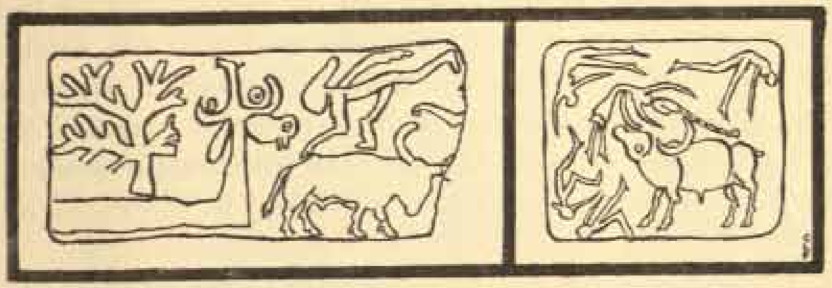


Fig. 3.

outline copies which I have prepared after the most careful examination of the originals and their impressions under a magnifying glass.

The left-hand sealing can be divided into two halves. The left half, showing a tree, a platform, a pillar and a bird, is of the utmost importance and constitutes the crowning corroboration of all my comparisons in this article. However, I shall discuss that later. At present let us examine the right half of this sealing (fig. 3, left-hand compartment). Here a bull is shown, in a charging attitude, lowering its head. A portion of the sealing is broken off; yet a hand and the arm of an acrobat above the horns are distinctly visible; here is a person, thus, about to catch the horns of the bull exactly like the lady on the left of fig. 1. A second acrobat is shown, again as on the Cretan examples, alighting on the back of the bull with a skilful jump, no doubt in order to gain fresh purchase for the final landing in the arena. The performance is in every respect identical with those of the Minoan sports.

The seal in the right-hand compartment of fig. 3 is even more striking. Here the bull's place is taken by a buffalo: a detail of little importance in view of the attested fact that in the Minoan colony of Didyma the bull has been replaced by the less dangerous oxen.[2] This change may be compared to that of the tiger for the original lions in the well-known representation of the 'Hero Grappling

[1] EVANS, Vol. III, p. 219, fig. 151. Cp. also the bronze figure, *ibid.*, p. 221, fig. 155.

[2] EVANS, IV. i, p. 47, note 4.

Two Lions' (Gilgamesh, Hercules, *etc.*).[1] But for this detail, all the rest of this seal is thoroughly identical with the *taurokathapsia* shows of Minoan Crete. Here a lady, dressed in a double skirt (which again has its exact parallels in Cretan seals of the third millennium B. C.[2]), is just being lifted up by the beast, and her hair, knotted in a long plait, streams in the air very much like the curly pigtails of the Cretan performers in fig. 1. Another lady performer is just landing on the hind quarters of the buffalo; another, in the right-hand upper corner, is trying to make a back-somersault; and two acrobats have been thrown and are seen tumbling down on the ground before the animal. That the performers are ladies can distinctly be seen in the seal from their breasts; the hair plaits alone would not prove their sex, as evidenced by the man on the clay sealing (left-hand compartment, fig. 3). The fallen acrobats can be paralleled in several seals from Crete on which they are shown in very similar situations struggling or dazed on the ground.[3] Indeed, there is hardly a detail that has no parallel in Crete; and it would not be difficult to cite prototypes for every figure on this seal. The one in the upper right corner, *e.g.*, can be compared with the acrobat in fig. 2, left-hand seal. The lady almost on the horns of the buffalo should be compared with her sister shown in exactly the same attitude in another Minoan fresco reproduced by Sir Arthur in Vol. III, fig. 143 (p. 209); and as for the two fallen off figures, they have accurate counterparts in the reliefs of the Vaphio gold cup (EVANS, Vol. III, fig. 123).

No other meaning can be ascribed to these Mohenjo-daro seals but that they are illustrations of a practice essentially identical with the Minoan games of the same era.

The Sacrifice of the Bull to the Goddess.

What was the meaning and purpose of these games? Were they mere feats of skill in which the strong males of the nation wanted to display their adroitness and courage, to be applauded afterwards like the *toreadors* and *matadors* of the present-day Spanish bull-fight?[4] In that case the place of these well-dressed and bejewelled ladies of high standing and fine complexion,—some of them with plenty of *rouge* on their lips,—would have been the Grand Stand, so magnificently illustrated in one of the frescoes in the Palace of Minos. In that painting we see the cream of Cretan society gathered to witness one of these bull-games; and in the middle of the Grand Stand is the shrine sacred to the Mother Goddess of Crete.

I do not wish to repeat here a great deal of matter that readers may easily look up in Sir Arthur EVANS's learned book. To sum up shortly: these bull-grappling games were dedicated to the Mother Goddess of Crete; the young ladies and the young gentlemen who took part in them, offered this struggle, as it were, to their beloved Goddess. She herself, the supreme deity of the Island, appears

[1] The subject is treated in Western Asia and in India in a perfectly identical manner, the only change being that tigers take the place of lions in Indian seals.

[2] EVANS, II, ii, fig. 488 (p. 754), or III, fig. 95 (p. 147).

[3] *E. g.*, EVANS, III, figs. 158-159 (pp. 225-226), also fig. 123.

[4] It is noteworthy to remember that the bull-fight in Spain has a history of some two thousand years. So long is the life of *circenses*!

in one of her chryselephantine statuettes dressed in the attire of bull-grappling ladies, *i.e.*, with the male loin-cloth. She was, as Sir Arthur EVANS puts it, "Our Lady of the Sports". "It was not enough", says the excavator of Crete, "that her pillar-shrine should overlook the Palace arena. The Minoan bull-sports, as practised either there or in the rock-fringed glens of the country beyond, might well be thought to call at every turn for the personal intervention of the Goddess. For it was in truth a dangerous profession. On the frescoes and reliefs we watch the performer launched in mid-air from a vantage-coign to gain stranglehold of the coursing animal, or failing that, entangled between its horns and whirled round with monstrous force; we see him depicted taking back-somersaults from the bull's hind-quarters in the uncertain hope that an attendant at the side may break his fall, while, in more than one instance, he is badly thrown or tossed and lies half dazed on the field, to be gored or trampled upon". It was not for "mere fun" that these ladies and men undertook such feats. It was a self-sacrifice to the Goddess, and the games ended by killing and offering the bull before the shrine of the Divine Mother.

This ritual sacrifice is illustrated in a large number of seals and reliefs of ancient Crete. I am reproducing here in fig. 4 only one of the many representations; an outline copy of a seal of no mean interest, as it shows a personage in the garb of a high priest performing the sacrificial killing. He wears a wreath round his head, above which is seen a beaded *bandeau* that falls down on both sides behind the shoulders, and terminates in two pendants in the form of stars that doubtless had a symbolic significance. He has drawn a short sword out of its sheath which hangs on a strap from his shoulder; and he is seen driving this sword into the beast's neck.



Fig. 4.

The last phase of this dramatic ceremony is the offering of the dead body of the bull to the shrine of the Goddess. This is shown in a number of seals, steatite, carnelian and agate,[1] in which the bull is shown dead, with the dagger in its neck, laid upon a sacrificing table, with the Sacred Tree sometimes in the background. But the fullest document, showing the purpose and end of all these games, is the fresco on a sarcophagus from Hagia Triada, an outline copy of which is given in my fig. 5. Here the last act of this drama is shown in its entirety. A priestess, with a gaily decorated crown, is offering the dead bull to the Sacred Tree of the Mother Goddess. The beast is laid upon the table, and the blood from its neck-wound is pouring down into a basin. Under the table are two other objects of the sacrifice: two deer. Behind the table a youth

[1] EVANS, IV, i, p. 41, figs. 24, 25, 26.

is blowing vigorously a sacred song on his double flute; and nearer to the shrine, a lady, who has put on a skirt made from the skin of another sacrificed bull (not

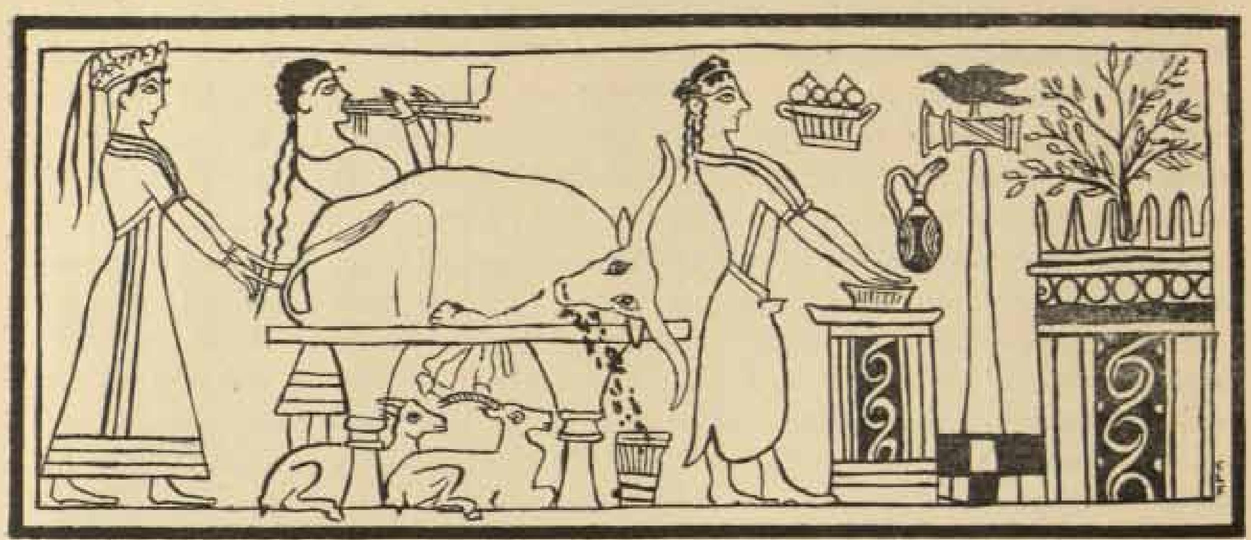


Fig. 5.

distinguishable in my drawing), is laying her hands over a bowl which is placed on an altar. Above it, in the air, are seen a vessel for libation and a basket of fruit-offering. Then comes, to the extreme right, the *temenos*: a sacred enclosure surrounding a Holy Tree; with the double axes of Cretan worship forming a battlement over the cornice. And before the *temenos* is the constant symbol of the Mother Goddess: the Dove, seated on a pillar crowned by the Sacred Axe. The pillar itself is erected over a brick platform. Altogether, an eloquent document of bull-sacrifice and of the adoration of the Dove and the Tree.

Were the bull-grappling games followed by a similar sacrifice in the Indus Valley too?

The seal and the two sealings in fig. 6 show that the ritual ended in the Indus Valley exactly as it did in Minoan Crete. The upper compartment in fig. 6 shows a man (with his sex well emphasized) getting hold of the horn of the buffalo, trampling with one foot on its nose, and driving a spear into its back. The middle compartment of fig. 6 is a copy of a terra-cotta sealing (Dk 8120). Here a man thrusts his spear into the neck of a bull (the animal is the same as on the 'short-horned bull' seals), while stepping with one foot on one of its horns and holding the other horn with his left-hand. The most important detail, however, is the snake rising up behind the bull. This element definitely gives this scene its religious character; and it is not mere coincidence, I suggest, that the snake is a constant symbol of the Mother Goddess of Crete, who is usually shown as holding a snake in each hand!

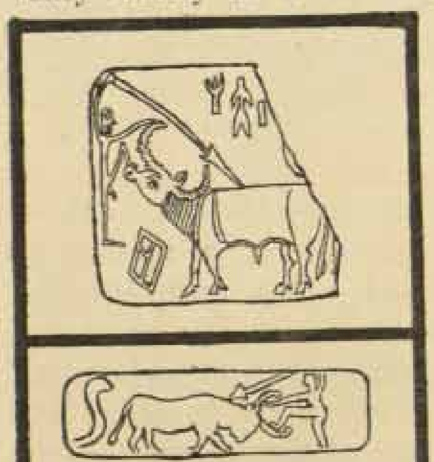


Fig. 6.

If any more corroboration is wanted, the lowermost panel in fig. 6 can satisfy the most scrupulous reader. The same bull-killing scene is repeated in this twisted clay sealing (Dk 4547) as in the two upper seals just discussed; but we have here *behind the bull the Sacred Tree*, exactly as in Crete, to symbolize that the bull is going to be sacrificed to the Mother Goddess. (As will be remembered, the Mother Goddess is not shown in person in the Cretan fresco (fig. 5), but she is represented by a Tree in a railing and by her symbols, the Dove and the Axe.) In our sealing there are three lady attendants behind the Tree, probably waiting to offer the sacrifice in much the same manner as in the fresco reproduced in my fig. 5; and the pipal leaf and a vessel-shaped pictograph probably allude to some other offerings, as the libation vase and the fruit basket do in the Cretan fresco. Every single element of this sealing finds thus an explanation by reference to Minoan customs!

All these details would suffice to convince anyone about the identity of these ritual practices in Crete and India. The most surprising and the crowning proof, however, is found in the sealing from Mohenjo-daro, discussed above, and shown in my fig. 3, left-hand compartment.

Here the bull-grappling is shown against a background of the arena shrine, exactly as in some Cretan seals. Every important detail is repeated. *Here is the Sacred Tree in the temenos as in Crete; here again is the pillar rising from the platform, with the two horns as so often found in shrines of the Mother Goddess of Crete; and here is even the Sacred Bird of the Mother Goddess, seated upon the pillar before her Tree, again exactly as in Crete!* (Cf. fig. 5.)

I find it impossible to believe that so many details, so many elements of popular worship, could be invented independently, owing to the "similar working of the human mind". I find it also impossible to believe that these seals and sealings from Mohenjo-daro can have any other explanation than that given by me, seeing that they agree not only in essentials but even in minute details with the representations from contemporary Crete.

The Bird Figurines of Mohenjo-daro.

I suggest that these clear correspondences between the ritual practices of Minoan Crete and the Indus Valley Civilization will now give us a clue to the numerous bird figurines discovered at Mohenjo-daro.

The Dove is the symbol of the Mother Goddess of ancient Crete. It occurs numberless times, and very often connected with the Sacred Tree and the Sacred Double Axe[1]: two other favourite symbols of the Divine Mother. The third is the horn. Large deposits of horns have been found in Cretan shrines, and the "Man-Bull" is the famous Minoan Genius. All these elements have parallels in the Indus Valley. The Mother Goddess has numberless terra-cotta figurines. The Sacred Tree is one of the best attested elements of Indus Valley religion. Horned gods and horned dancers are represented in many terra-cotta heads and seals both from Mohenjo-daro and from Harappa.

[1] The double-axe is one of the pictographs of the Indus script. It also occurs on two sealings from Mohenjo-daro: Dk 12270 and Dk 11429.

The birds, especially the dove, of Mohenjo-daro are thus one more of the many symbols of the Mother Goddess. The Sacred Tree is probably her shrine. The bull-horned dancers are probably her devotees. And one of the important forms of sacrifice in the Indus Valley as well as in prehistoric Crete was to perform dangerous bull-grappling feats, risking the devotee's life, after which the bull (or buffalo) was sacrificed before the Sacred Tree of the Goddess.

In conclusion I should like to attract the reader's attention to fig. 7. This is a reproduction of a Cretan onyx seal, and it shows an acrobat, suddenly jumping on to the head of a bull which he has caught unawares whilst it was drinking from a cistern. The grappling scene is already familiar to us. The acrobat jumps from some high position, catches the horns, and will try to turn over and make his *salto mortale.* What I wish to point out, however, is the striking similarity of the technique and artistic conception of this seal to those of the Indus Valley. Indeed, this bull, not superior by any means to some of the finer seals from Mohenjo-daro, shows a treatment of the animal so thoroughly identical with that of the Indus Valley cutter's art that it might as well have been made at Mohenjo-daro as in Crete.



I may add this much that a connexion between ancient Crete and the Indus Valley people in the chalcolithic times is far from being impossible. Though the overland route may be mainly responsible for cultural and commercial contact, the possibility of direct sea travel cannot be excluded. Crete was a small island, but an absolute treasure-house of the world's goods. Gold and silver, precious stones and ornaments, products and produce of many countries poured into the Palace treasuries. Cretan tradesmen sailed over all the seven seas of the ancients. They had colonies in Syria, Palestine and Egypt. They imported goods from Egypt, Hatti, Sumer and Assyria. And they sent, when ill times befell them, tributes to the Kings of Egypt. Some of the elements of their culture have reached, no doubt, the shores of the Indus. I hope one day to publish a seal found at Mohenjo-daro which I believe to be a directly imported object from Crete.

C. L. F.

January 8, 1936.

LATER NOTE.

Bullock Sacrifice among the Ancient Jews.

The following text from the Old Testament, *Leviticus,* 4, vv. 1 sqq., will be of great interest as describing in detail the sacrifice of bullocks by a Semitic people, sometime in the second millennium B.C., *nearer to India than Crete* :

" And the LORD spake unto Moses, saying, Speak unto the Children of Israel, saying, If any one shall sin unwittingly, in any of the things which the LORD hath commanded not to be done, and shall

do any one of them: if the anointed priest shall sin so as to bring guilt on the people: then let him offer for his sin, which he hath sinned, a young bullock without blemish unto the LORD for a sin offering. And he shall bring the bullock unto the door of the tent of meeting before the LORD; and he shall lay his hand upon the head of the bullock, and kill the bullock before the LORD. And the anointed priest shall take of the blood of the bullock, and bring it to the tent of meeting: and the priest shall dip his finger in the blood seven times before the LORD, before the veil of the sanctuary. And the priest shall put of the blood upon the horns of the altar of sweet incense before the LORD, which is in the tent of meeting; and all the blood of the bullock shall he pour out at the base of the altar of burnt offering, which is at the door of the tent of meeting. And all the fat of the bullock of the sin offering he shall take off from it; the fat that covereth the inwards, and all the fat that is upon the inwards, and the two kidneys, and the fat that is upon them, which is by the loins, and the caul upon the liver, with the kidneys, shall he take away, as it is taken off from the ox of the sacrifice of peace offerings: and the priest shall burn them upon the altar of burnt offering. And the skin of the bullock, and all its flesh, with its head, and with its legs, and its inwards, and its dung, even the whole bullock shall he carry forth without the camp unto a clean place, where the ashes are poured out, and burn it on wood with fire: where the ashes are poured out shall it be burnt." (In vv. 13-21 very similar instructions are given "if the whole congregation of Israel shall err"; in this case it is the elders of the congregation who lay their hands upon the head of the bullock.)

A few noteworthy features of this revolting and bloody procedure are that the bullock is made to suffer for the sin of the sinner by a kind of sympathetic magic; the bullock's blood is spent instead of the sinner's blood; that the blood is partially to be sprinkled before the Sanctum and partly to be smeared *upon the horns of the altar*: showing, thus, the last remnants of an old Bull-God-Worship, of which only a pair of horns are left on the altar, very much like in ancient Crete, where a Sanctuary was symbolized by a pair of horns on a pedestal or altar! So far the first portion of the sacrifice: the spending of the blood of the sinner, or his *locum tenens*, the bullock. The second portion is a fire-sacrifice, in which fat is offered for the god, no doubt, for food. And the third portion of the procedure is the carrying away of the remains of the *locum tenens*, and burning them carefully outside the camp: this is very important, as the bullock now has taken over by sympathetic magic all the sins of the sacrificer, and anyone touching it may catch the sin again; hence the total destruction.

The sentence describing the priest who "shall lay his hand upon the head of the bullock, and kill the bullock before the LORD" reminds us strongly of the Cretan and Indus Valley representations: the bull-bullock is brought actually *before the sanctuary*, and the priest, *holding with one hand* one of the horns of the beast, thrusts his weapon into the animal.

A NOTE ON THE NANPAYA TEMPLE AND IMAGES OF BRAHMĀ CARVED ON THE PILLARS INSIDE IT, MYINPAGAN, PAGAN.

By U Mya.

The Nanpaya temple at Myinpagan, Pagan, has long been known for its beautiful specimens of stone sculpture, but opinion is divided as to its original character as a religious monument, as also regarding its builder and his age. In his note on that temple, the late Mr. Taw Sein Ko wrote as follows:—

"This building, which is a small structure of exquisite proportions, is situated about two miles to the south of Pagan, and close to the Manuha temple.

According to tradition, it was used as the palace of the Talaing King Manuha, when he built the temple in 1059 A.D. The Nanpaya contains specimens of fine sculptures in stone. The head of the Brahmā is engraved on the pillars, which are adorned with floral designs."[1]

According to one tradition the Nanpaya was thus used by Manuha as his palace when he was a captive at Pagan about the middle of the 11th century A.D. and must have been built a little earlier. According to another current tradition, however, the Nanpaya was a *temple* built on the site of Manuha's residence by one of his descendants during the time of king Narapatisithu (1173-1210 A.D.) so as to perpetuate the memory of king Manuha and the site of his residence.[2] Tradition is however silent as to whether the temple was Buddhist or Hindu. Certain orientalists noticing the figures of Brahmā sculptured on the pillars inside, are inclined to regard the Nanpaya as a Hindu temple. According to Mr. Taw Sein Ko "each of the windows is surmounted by a highly decorated arch, whose centre is supported by a vase, and on whose summit sits a Hindu deity". Further, he says, "On two sides of each pillar are carved the four-faced Brahmā, the creator of the universe, holding lotus flowers in each hand".[3] The local Buddhists, who would not allow the wearing of shoes inside a Buddhist temple, have no such scruples about this temple, as they consider it to be either an old palace, or a Hindu temple. It is not in present use as a religious monument, and when taken over by Government for thorough repairs was in an utterly ruined condition (Plate XXVI).

The usual objects of worship in Buddhist temples at Pagan are images or foot-prints of Buddha, or stupas. The latter are rare, but Buddha's foot-prints are frequently painted on the ceilings of porches or corridors, and stupas are carved or painted over windows, door-ways, or arches, although the main objects of worship may be Buddha images. None of these features are however noticeable in the Nanpaya. As soon as one enters the sanctum, one is confronted with figures of Brahmā carved on four large square pillars, erected one at each corner, the space in the centre being now empty. Two figures of Brahmā are carved in low relief on the two sides of each pillar adjacent to the centre of the sanctum, the other two faces being occupied by floral designs and *kirttimukhas* carrying beaded festoons and triangular pendants. Each figure of Brahmā is seated in the *ardhaparyaṅka* pose, with the left knee flat and the right raised, on a full-blown lotus. On account of the three visible heads some people have recognized these Brahmā figures as Trimūrti, the composite form of the Hindu triad: Brahmā, Vishnu and Siva, but the faces are all alike and the fourth head of Brahmā must be taken as facing the unseen direction. The hair is arranged in a beautiful *Jaṭā-mukaṭa* and is crowned by a small finial with a round bottom

[1] "Amended list of Ancient Monuments in Burma—Meiktila Division", p. 18, Serial No. 28—Printed by the Superintendent, Government Printing, Burma, Rangoon, 1921. For a further note on the same temple by the same author see Archæological Survey of India, Annual Report, 1907-08, pp. 34-35.

[2] A Burmese manuscript in the library of the office of the Superintendent, Archæological Survey, Burma.

[3] Archæological Survey of India, Annual Report, 1907-08, pp. 34-35.

resting on a double lotus. The halo round each head; the scarf falling gracefully across the breast, in the form of the sacred thread, over the shoulders and by the sides; the girdle partly hidden below the flabby stomach which may be noticed with its ends tied into knots by the side make the identification certain. The two raised hands are bent at the elbows and hold lotuses springing from stalks that shoot out from the main stem of Brahmā's lotus seat (Plate XXVI (*d*)).

Images of Brahmā closely resembling those in the Nanpaya may be noticed in the paintings on the walls of the Kubyaukkyi Temple, Myinpagan. Here they are placed in intermediate panels high up on the wall on each side of the entrance to the porch of the temple. The panels still higher up are occupied by row of standing *arhats* or perfect beings with their hands on breasts in a contemplative attitude. At the bottom is painted a ten-armed Bodhisattva with two of the hands also placed on the breast flanked by a devotee or *śakti* on either side. The arrangement is suggestive of the hierarchy of the figures, the *arhats* being considered to be superior to the Brahmā figures and the ten-armed figure below, who might have been taken for a *deva* being lowest in the scale. (Plate XXVI, fig. f.)

The Buddhist character of the Kubyaukkyi is unquestioned. The principal object of worship here is a Buddha image and on the walls of the sanctum and the porch scenes from the Jātakas and Buddha's life are painted. The *arhats*, Brahmās and the ten-armed Bodhisattvas, on the walls at the entrance must all be taken as offering obeisance to the enshrined Buddha. The Brahmā figures may perhaps be taken to be inmates of the world of Brahmā represented here as paying respect to the Buddha, and offering lotuses or flowers to him.

The role assigned in Buddhist scriptures to Brahmā (or Brahmās) as a subordinate deity in the life of Gautama Buddha is well known. The four chief Brahmās are said to have received prince Siddhārtha in a golden net. A chief of Brahmās is said to have held over his head the white umbrella during the seven steps he took immediately after his birth. In a painting from Siam representing the Bodhisattva leaving the world, Brahmā is shown with an umbrella following the crowd of *devas*.[1] He was one of the *devas* rejoicing over Buddha's triumph over Māra. Ghatikāra Mahābrahmā is said to have presented the Buddha with the earthen bowl, which disappeared at Sujātā's offering. After his enlightenment when Buddha was disinclined to preach the law, Mahābrahmā Sahampati appeared before him kneeling and with folded hands entreated him to undertake the preaching of the law. When Buddha came down from the Tāvatiṁsa heaven by the triple ladder, he was flanked by Brahmā on the right holding an umbrella over his head and a *deva* on the left. Many of these incidents are reported both in painting or in sculptures at Pagan. The sixteen Brahmā-lokas are among the 108 marks on the soles of Buddha's feet. Mahābrahmā, though the greatest of all *devas*, is considered to be infinitely inferior to Buddha, and he as well as other *devas* are frequently said to visit the Buddha in order to do him homage. The images of Brahmā or Brahmās in the Nanpaya

[1] A. Grunwedel's "Buddhist Art in India", p. 102, fig. 54.

Temple can therefore be considered as Buddhist and not Brahmanical. Further proof of the Buddhist character of the Nanpaya is afforded by the presence of carvings, in low relief, of miniature stupas as pediments above the arches over the four pillars bearing those images and supporting the roof and *śikhara* above. These stupas are not easily visible to a casual observer owing to the dark interior, but are a common feature of the temples at Pagan. They consist of five receding terraces ornamented with mouldings, on the topmost of which may be noticed two crouching lions flanking the shrine above. The shrine above rests immediately on a dwarf dado-like pillar. The shrine itself is made up of ribbed mouldings in the shape of an *amalaka*, two rows of double lotus-petals, and a bell-shaped finial tapering to the top and consisting of mouldings with fillets, and a crowning feature in the shape of a lotus-bud (Plate XXVI, fig. e). It is thus reasonable to assume that the terraced stupa ornament belonged to a Buddhist temple.

The original object of worship in the shrine was probably an image of Buddha placed on a pedestal or perhaps four images facing the cardinal points as in the Ānanda, but these have since been dug up by treasure hunters. Evidently no vestige of an image was found when the temple was first taken up for repairs, although traces of a pedestal are still preserved. Faint traces of paintings can be discerned on the plastered surface of the walls of the temple by slight moistening with a wet cloth. Turning to the 'Hindu deity' referred to by Mr. Taw Sein Ko as found on the summit of the decorated arch above each window opening, it may be mentioned that the unquestionable Indian element noticeable in the monuments, sculptures and paintings at Pagan, is often attributed to the Brahmanical faith. This has been the case with the so-called "Hindu deity" at the Nanpaya, more so when it was thought to be a Brahmanical temple. It certainly represents a form of the Sun-god but of the Buddhist pantheon. As far as I could make out from the example found in a fair state of preservation, the god is seated cross-legged on a lotus seat in a niche above the crown of the arch in a *makara toraṇa*. His high head-dress and close-fitting jacket, and his hands holding full-blown lotus flowers by their long stalks, which probably spring from below the lotus seat are points in favour of the identification as the Sun-god. Similar figures are found at Pagan in purely Buddhist temples. In one instance, it has been identified with the goddess Śrī or Lakshmī, which resembles the other male figures in many respects. In the Nanpaya examples it is difficult to determine the sex of the figures in their present deteriorated state. However, whether as the Sun-god, a child of Aditi or as "Śrī", the goddess of beauty, prosperity, domestic blessing and wealth, or as a goddess illumining the eastern skies like the morning star, the figure is not foreign to Buddhist literature.

As regards the builder of the temple and his age local tradition, as stated by Mr. Taw Sein Ko, believes that the building was in existence in 1059 A.D.

A noteworthy feature of the Nanpaya is the *śikhara* with bulging sides of North-Indian type resting on terraces above the basement. Only a part of this *śikhara* now remains, the top having disappeared. A Buddhist temple at Pagan

is not considered complete without a *zedi* (Chetī=chaitya, here, a conical stupa) as a finial, surmounting the *śikhara*, the latter being sometimes dispensed with, but not the former. That there was a *zedi* originally over the *śikhara* of the Nanpaya may be inferred from the miniature temples at the corners of the terrace, where the bases of *zedis* may still be traced. In the extant examples of palaces and other secular buildings that are preserved in sculptures and paintings at Pagan we do not find a *śikhara* or a *zedi*, the indispensable crowning members of a Buddhist temple. It can thus be concluded that the Nanpaya cannot be anything but a temple and the tradition that it was a palace or king's residence must be wrong. On the other hand, Manuha's alleged connection with that building is possibly based on the other tradition assigning it to a later age, that is, to the time of Narapatisithu (1173-1210 A.D.) with a descendant of Manuha as its founder.[1] But the difference of over a century between the two dates cannot be bridged over.

The design and style of the ornament both inside and outside the Nanpaya and the type of the Brahmā images carved on the pillars should prove valuable factors in determining its age, but as has been already noticed by Mr. R. P. Spiers, the *kirttimukhas*, beaded festoons and pendants are met with in many temples at Pagan ranging over many centuries, as for example on the walls of the lower storey of the Kyaukku *Onhmin* or cave temple in the northernmost part of Old Pagan.[2] The latter temple like the Nanpaya was built partly of stone and partly of brick but scholarly opinion is divided as regards the date of its construction. On the strength of the evidence of a stone inscription found therein the Kyaukku has been attributed to King Narapatisithu in 1188 A.D., the king during whose reign the Nanpaya is also said to have been built but the references to the temple in the inscription are vague and inconclusive.[3] On the other hand Dr. Forchhammer, the first Archæologist in Burma, however says: " Narapatisithu erected only the upper two storeys (of the Kyaukku Onhmin) in the 12th and Narasihapati the lateral terraces in the 13th centuries, but the lower seems to have existed before Anoratha (11th century). I believe the Kyaukku temple to be, like the Mahamuni shrine in Arakan, a remnant of North Indian Buddhism, which existed in Burma before the introduction and establishment of the Southern Buddhist school from Ceylon and Pegu ".[4] In the circumstances, the problem of the date of the Kyaukku temple (and with it that of the Nanpaya) may be left undetermined for the present. The foregoing discussion with regard to the Nanpaya may be summed up as follows:—

1. The images of Brahmā carved on the pillars inside the temple represent inmates of the Brahmā worlds who are on a visit to the Buddha to worship him.

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[1] It may be mentioned that in an excavation made close to the south side of the Nanpaya temple in 1931-32 there were brought to light traces of a brick pavement a few feet below the surrounding level, and remains of brick walls, each about 2' 3" in thickness. There was found also a flight of steps coming up from a lower level but owing to their fragmentary state, the nature of the building once occupying that site cannot be ascertained.

[2] Fergusson's " History of Indian and Eastern Architecture ", Vol. II, p. 355.

[3] " Inscriptions of Pagan, Pinya and Ava ", pp. 313-315, and the same, translation with notes, pp. 144-145.

[4] " Amended List of Ancient Monuments in Burma, Meiktila Division ", p. 2, printed by the Superintendent, Government Printing, Burma, Rangoon, 1921.

2. The deities enshrined in the niches above the crowns of arches over the window openings may represent a form of the Sun-god or Śrī of the Buddhist pantheon.

3. The temple itself is a Buddhist temple.

4. It is improbable that the temple was originally used by Manuha as his residence in the 11th century A.D. although it is probable that it was built on the site of Manuha's palace by one of his descendants.

5. It may provisionally be dated in the 12th-13th century A.D. perhaps during the time of King Narapatisithu (1173-1210 A.D.), but this requires further proof for confirmation.

SECTION IX.—DEPARTMENTAL ROUTINE NOTES.

ANCIENT MONUMENTS PRESERVATION ACT AND LISTING OF MONUMENTS.

United Provinces.—The Memorial pillar marking the site of the pre-mutiny Residency in the old Marion Cantonment at village Mohibullapur, District Lucknow, was declared protected, and agreements were made with the Trustees and owners of the following monuments:—

(1) Bhatwa Mau House in Kaisarbagh, Lucknow.
(2) Imambara of Nawab Asaf-ud-Daulah Bahadur excluding the Mosque and the outhouses on both sides of the *hauz* (tank) and the stairs, Lucknow.
(3) Rumi Darwaza near Asaf-ud-Daulah's Imambara, Lucknow.
(4) Tomb of Mushirzadi, wife of Nawab Sa'adat Ali Khan, Lucknow.
(5) Tomb of Nawab Sa'adat Ali Khan, Lucknow.
(6) Qadam Rasul, near Shah Najaf, Lucknow.
(7) Mosque of the Caravansarai at village Sondhan Muhammadpur, Pargana Sambhal, District Moradabad.

Punjab.—Two monuments, *viz.*, (1) Roshanai Gate and the buildings adjoining it on the north of the Hazuri Bagh and the Gate and the buildings on the south of the Hazuri Bagh between the Badshahi Mosque and the Fort at Lahore, (2) Temple called *Kalar* or *Sassi-da-Kallara* in village Shah Mohammad Wali, Tahsil Talagang, District Attock, have been declared protected. An agreement under the Ancient Monuments Preservation Act was executed with the owners of the ancient ruined temples at Baghanwalla in the Jhelum District.

The rules under Section 15 of the Ancient Monuments Preservation Act for the regulation of visitors to Archæological excavations and Museums at Harappa and Taxila have been brought into force.

Bombay Presidency including Sind.—Two ancient monuments, *viz.*, (1) Gateway to fort, including bastions, etc., locally known as Baherpura Vesh at Amalner in East Khandesh District, and (2) Chhota Asar Mosque at Bijapur were transferred to the local Government for maintenance. The prehistoric mound of Chanhudaro in the Sakrand *taluqa* of Nawabshah District in Sind was declared protected. Rules to regulate visitors to visit the Archæological excavations and the Museum at Mohenjo-daro in Sind have been enforced under Section 15 of the Ancient Monuments Preservation Act.

Bengal.—Three monuments, *viz.*, (1) Jagannātha temple, (2) Jor Bangla temple at Handiyal in the Pabna District, and (3) the *Deul* at Mathurapur in the Faridpur District were added to the list of protected monuments. The removal of the images of Kṛishṇa-Balarāma, Bāla Kṛishṇa and Śiva dancing the *tāṇḍava* dance at Deulbhira in the District of Bankura was prohibited by the Government of Bengal in their Notification No. 252-P. D., dated the 5th May 1934.

Assam.—Two figures of Gaṇeśa, a group of 12 Śiva-liṅgas, one four-handed Bhairavī, four miniature Śikhara shrines, a figure of Narakāsura, a two-handed Bhairavī, all carved on the western slope of the Kamakhya hill, in Kamrup District, and an eight-handed dancing Bhairava (locally known as Bāla-Bhairava) at the foot of the hill were declared protected.

Madras.—The ancient monument, *viz.*, " Cavern with Pancha-Pandava Beds on the Rocky Hill " at Tirupparankunram in the Madura District has been transferred to the Trustees of the Madura Devasthanam; but an agreement is being made to have it protected.

PUBLICATIONS.

The following four publications were issued by the Department during the year 1934-35 :—

1. *Memoir No. 46.—On the Iconography of Buddha's Nativity*, by Mon. A. Foucher, translated by H. Hargreaves.
2. *Memoir No. 48.—Explorations in Sind*, by N. G. Majumdar.
3. *Guide to Elephanta*, by Dr. Hirananda Sastri.
4. *Epigraphia Indica, Vol. XXI, Parts 4 and 5*, edited by K. N. Dikshit; *Part 6*, by Dr. Hirananda Sastri, and *Part 1 of Volume XXII*, by Dr. N. P. Chakravarti.

PHOTOGRAPHS.

Director General of Archæology.—During the year under review 100 negatives were prepared chiefly in connection with the excavations at Taxila. Of the prints made during the year, 1,656 were required for the use of the departmental officers and 2,710 for the series maintained at the Taxila Museum. The Circle officers sent 1,464 prints, which were mounted in the albums kept for reference in the Office of the Director General of Archæology. The sale proceeds on 472 prints supplied to the public amounted to Rs. 454-3-6.

Northern Circle.—Of the 204 photographs taken during the year 86 were of the monuments in the United Provinces and 11 showed encroachments on certain monuments; 109 photographs of exhibits in the Delhi Fort Museum were taken and 4 of the excavations carried out at Sarnath and Qila Rai Pithora near Delhi. Fifty-nine prints were sold to the public and 486 supplied to departmental officers.

Frontier Circle.—Out of the 111 negatives prepared, 11 related to the excavations at Harappa and the remaining 100 to conservation work in the Circle. Eighty-four prints were supplied to the officers of the department and 200 prints were mounted in the albums kept in the Circle office for reference. Prints worth Rs. 286 were sold to the public.

Western Circle.—Altogether 304 negatives and 1,030 prints were prepared. Of the latter, 136 were supplied to the Director General of Archæology, 159 to departmental officers and 108 to the public at a cost of Rs. 115-5. The remaining 627 prints were required for the series maintained in the Circle office.

Central Circle.—Two hundred and seventy-five negatives were prepared during the year. Of the 931 prints made, 223 were supplied to the Director

General; 121 to departmental officers; 72 to India Office Library and 22 to the public at a cost of Rs. 12-2. Four hundred and forty-six prints were required for records in the office of the Central Circle; and 47 negatives were utilized to illustrate departmental publications.

Eastern Circle.—Eighty-eight photographs were prepared, of which 67 related to the excavations at Baigram, Medh and Mahanad and the remaining 21 to monuments in Bengal and Assam. A sum of Rs. 24-10 was realized by the sale of photographs to the public.

Southern Circle.—One hundred and sixteen photographs were taken during the year. Of the 489 prints made, 144 were supplied to the Director General of Archæology, 101 to the Superintendent for Epigraphy, 21 to the Madras Museum, 6 to the Superintendent, Northern Circle, Agra. Thirty-nine prints were sold to the public at a cost of Rs. 35-8. The remaining 178 prints were required to complete the series maintained in the Circle office.

Burma Circle.—One hundred and forty-nine photographs were taken which related chiefly to monuments and sculptures at Zokthok, Thaton District, monuments and inscribed bricks at Hmawza and the interesting panels of sculptures with legends in old Burmese found on the walls round the platform of the Mangalachedi pagoda, Pagan.

Indian Museum.—One hundred and twenty negatives were prepared in the Archæological Section of the Indian Museum.

DRAWINGS.

Director General of Archæology.—Eight drawings and one plan were prepared in connection with Sir John Marshall's Memoir on Taxila. Besides, 400 sketches of selected specimens of iron, copper and stone objects, exhibited in the Taxila Museum, were made to illustrate the aforesaid Memoir.

Northern Circle.—Thirty-one drawings were prepared. They consisted of working drawings in connection with conservation measures and plans of structures unearthed at Sarnath and at the excavations at Qila Rai Pithora and Lalkot. The six Draftsmen, sanctioned by the Government of India, late in the year, prepared 18 drawings in connection with Sir John Marshall's special duty.

Frontier Circle.—Thirteen drawings were prepared, out of which three related to excavations at Harappa, one each to monuments at Nawankot and Jahangir's tomb, Shahdara and the remaining eight to the Lahore Fort.

Western Circle.—Forty-three plans in respect of conservation works were prepared.

Central Circle.—Twelve drawings were prepared, of which 10 related to the excavations at Nalanda.

Eastern Circle.—Five drawings were prepared showing excavated remains at Mahanad, District Hooghly, Baigram, District Dinajpur and Medh, District Bogra. Besides, a number of tracings relating to conservation works on protected monuments were also made.

Southern Circle.—Three sketch drawings were prepared referring to Buddhist remains at Nagarjunakonda, Guntur District, for land acquisition purposes.

Burma Circle.—The sixteen drawings prepared related to the ancient monuments together with the old objects found at Zokthok in the Thaton District; the painted panels on the walls of the Abeyadana and Kubyaukkyi temples at Pagan; and the figure of an *arhat* and a Tazaung containing similar figures at Ava.

PERSONNEL.

Rai Bahadur Daya Ram Sahni, the Director General, proceeded on six months' leave preparatory to retirement with effect from 1st December, 1934, and Mr. J. F. Blakiston was appointed Officiating Director General with effect from the same date. Dr. M. Nazim, Assistant Archæological Superintendent, who had been on Special Duty in the Western Circle, was appointed Officiating Superintendent in the Frontier Circle *vice* Mr. J. F. Blakiston. Khan Bahadur Maulvi Zafar Hasan continued as Deputy Director General till 15th February 1935 when he proceeded on eight months' leave out of India, and Mr. K. N. Dikshit was appointed in his place from the same date. Mr. H. L. Srivastava continued to hold charge of Central India and Rajputana Circle except for a short period when he proceeded on leave from 13th August to 24th September 1934. Dr. C. L. Fâbri, an outsider, was appointed temporarily on special duty at headquarters, from 2nd January 1935, to edit the departmental Annual Reports which had got much into arrears. Sir John Marshall, who has been on Special Duty since September 1928, left India on 15th March 1934 and remained on duty till 31st December 1934. His Special Duty was suspended for about nine months from 1st January 1935. Mr. N. G. Majumdar, Assistant Superintendent, continued to officiate as Superintendent, Archæological Section, Indian Museum, and to hold charge of the Eastern Circle *vice* Mr. K. N. Dikshit, who was out of India on eight months' leave from March 1934. Mr. Dikshit relieved Mr. Majumdar on the 2nd November 1934, and the latter proceeded on three months' leave with effect from 8th November 1934. On return from leave, Mr. Majumdar was appointed Officiating Superintendent, Archæological Section of the Indian Museum in charge Eastern Circle, *vice* Mr. K. N. Dikshit appointed Deputy Director General.

Dr. N. P. Chakravarti was appointed Government Epigraphist for India with effect from 4th May 1934. He also held charge of the Office of the Superintendent, Southern Circle, when Mr. H. H. Khan proceeded on short leave from 8th December to 2nd January 1935.

For eight months of the year there have been two vacancies in the cadre of the Department, the retirement of Rai Bahadur Daya Ram Sahni causing yet another. Steps have, however, been taken to appoint officers in these vacancies.

APPENDIX I.

List of exhibits other than coins acquired for the Indian Museum, Archæological Section, during the year 1934-35.

PRESENTATIONS.

1-6. (9248-53).—Iron arrowheads from Kharavelagarh, Patna State, Orissa. (*Presented by Mr. Ramchandra Rath.*)

7. (9110).—A set of estampages of the Yerragudi inscription of Aśoka. (*Presented by Mrs. Anu Ghose.*)

8. (9101).—Stone sculpture—Śiva-Durgā. 9½″×5¾″. From Hazaratpur, Dinajpur. (*Presented by Babu Manmatha Kumar Roy.*)

9. (9086).—Image of Vishṇu. From Pichlit Kathal, Malda. (*Presented by the Jotearapur Pareshnath M. E. School, Malda.*)

10. (9087).—Bust of a female figure, probably Māyādevī. Height 9½″. From Sudarsan, near Mahanad, District Hooghly.

11. (9103).—Stone sculpture representing a standing female figure in relief. 4¼″×2¼″. From Mahanad, District Hooghly. (*Nos. 10 and 11 presented by Mr. N. G. Majumdar, Archæological Survey of India.*)

12. (9102).—Stone sculpture—Śiva-Durgā. 2′ 4″×1′ 1½″. From Jalesvara temple, Mahanad, District Hooghly.

13. (9104).—Fragment of a red stone figure with halo. From Mahanad.

14. (9105).—Terracotta matrix of a male figure; Gupta age. Height 4½″. From Mahanad.

15. (9106).—Clay figure. Height 3″. From Mahanad.

16. (9107).—Terracotta die. From Mahanad.

17. (9108).—Terracotta lamp. Diameter 2¾″. From Mahanad.

18-19. (9111-9112).—Tiles. 27″×11″, 16″×10″. From Mahanad. (*Nos. 12-19 presented by Rai Bahadur Nalini Nath Majumdar.*)

20-22. (9114-9116).—Lustred tiles. From Rhages, Persia. (*Presented by Mr. Ajit Ghose.*)

Stone images from Rajshahi, North Bengal.

23. (9205).—Dancing Gaṇeśa. Height 2′ 9″.

24. (9206).—Kārttikeya seated on the outspread wings of a peacock. Height 2′ 8″.

25. (9207).—Brahmā; to the right and left *Śaṅkha-purusha* and *Chakra-purusha*. 2′ 4½″×1′ 1½″.

26. (9208).—Śiva-Durgā. 1′ 8½″×1′ 2″.

27. (9209).—Kāmadeva with bow and arrow. Two females, probably his wives, appear as attendant figures. 2′ 2″×11″.

28. (9210).—Saṁvara with three heads and twelve arms. 2′ ½″×10″.

29. (9211).—Vishṇu. 5′×2′ 1½″.

30. (9212).—Brass image of Manasā with Astīka on her lap. Height 1′ 5¼″. (*Nos. 23-30 presented by Dr. Bimala Charan Law.*)

From Sisupalgarh, near Bhuvanesvara.

31-34. (9254-57).—Pottery vases.

35. (9258).—Fragment of stone with floral decoration.

36-38. (9259, 9263, 9268).—Terracotta dabbers.

39. (9260).—Pottery cup.

40. (9261).—Pottery lamp.

41. (9262).—Pottery lamp.

42. (9264).—Terracotta object with one tapering end.

43-44. (9265-66).—Terracotta pendants with elephant figure in relief.

45. (9267).—Terracotta pendant with bull figure in relief.

46. (9269).—Terracotta wheel.

47. (9270).—Terracotta five circular objects with designs on both faces.

48. (9271).—Terracotta horse-shoe shaped object with decorations.

49. (9272).—Terracotta, 7 beads.

50-52. (9273-75).—Terracotta, miscellaneous objects.

53-56. (9276-79).—Fragments of terracotta vessels.

57. (9280). –Thirty-two glass ard stone beads. (*Nos. 31-57 presented by Mr. B. N. Roy of Puri.*)

58. (9281).—Sandstone chaturmukha-linga. 5′×1′ ½″. From Uchanal, District Burdwan. (*Presented by Mr. Subhendu Singha Roy.*)

Purchased.

59. (9109).—Copper celt. 6½″×5¼″. From Kushaya, District Monghyr, Bihar.

60. (9282).—Red stone sculpture representing Kubera and Hāriti with seven figures, some male and some female, in the attitude of adoration. 7″×16½″. From Mathura.

61. (9283).—Stone figure of Sūrya. 16″×10″. From Nalanda, Bihar.

62. (9284).—Black stone door lintel, profusely decorated. There are six niches which contain figures of Lakshmī, two emaciated saints, two female worshippers and a male figure seated with a staff (Lakulīśa Śiva). 11″×24″. From District Murshidabad.

63-65. (9240-42).—Three stucco heads of Buddha. 8″, 6″, 6″. From Khyber Pass, Zinthara on the Khyber Railway (N. W. F. P.).

66. (9243).—Bronze image of Ṛishabhanātha. Height 1′ ⅝″. This and the following two were found in a mound at Kakatpur on the bank of the Prachi river, District Puri.

67. (9244).—Bronze image of a Jina with six human figures and a camel-like animal on the pedestal.

68. (9245).—Bronze image of a Jina. Height 3½″.

69. (9246).—Bronze sculpture consisting of one seated and one standing image of Ṛishabhanātha. Another standing image lost. Height 5½″×4½″. From a tank at Balipatna, near Bhuvanesvara, District Puri.

70. (9247).—A copper plate of Mādhavavarman Sainyabhīta II of the Śailodbhava dynasty. From Puri.

71. (9117).—Stone image of Vishṇu. 3′ 2″×18½″. From Radhanagar near Manda, District Rajshahi.

72-84. (9088-9100).—Lustred tiles from Rhages and Sultanabad, Persia.

85. (9113).—Lustred plate, inside decorated with blue glaze, a lion cub advancing to left. From Rhages.

Treasure Trove.

86-87. (9118-19).—Two bronze female images, one holding flower in right hand and another flower in left hand. 2′ 1¼″×2′ 1¾″. From Asur village, Kumbakonam Taluk, District Tanjore.

On loan from the Director General of Archæology in India.

From Sunet, District Ludhiana.

88-129. (9120-9161).—Terracotta sealings.

130-170. (9162-9202).—Terracotta moulds of Yaudheya coins

171. (9203).—Red stone bead.

172. (9204).—Cornelian bead.

From Dallin, District Montgomery.

173. (9213).—Cylindrical pottery vase with straight neck and flat bottom. Height 4¾".

174. (9215).—Cylindrical pottery vase with straight neck and flat bottom. Incised circular lines round the upper part. Height 3½". Diameter of mouth 3".

175. (9214).—Pottery cup with straight lip. Diameter of mouth 3".

176. (9216).—Pottery cup with flat lip. Diameter of mouth 3½".

177. (9217).—Pottery cup with narrow projecting bottom. Lip painted with thick lines. Diameter 3½".

178. (9218).—Pottery vase. Height 5".

179. (9219).—Terracotta animal figurine.

180. (9220).—Bust of a terracotta male with moustache. Height 2½".

181-182. (9221-22).—Busts of terracotta females. Height 3¼", 3¾".

183. (9223).—Terracotta male head with moustache; hair arranged in ringlets and tied with a fillet. Height 4½".

184. (9224).—Terracotta male head with knitted eyebrows and upturned moustache. Height 2½".

185-189. (9225-29).—Terracotta tablets divided into a number of compartments by straight lines, each compartment containing a set of strokes. 2¼"×2¼", 2"×2", 2⅛"×2⅛", 2⅜"×2⅜", 2¼"×2¼".

190-192. (9230-32).—Terracotta tablets marked on one side with three strokes. 2¼"×2¼", 1⅞"×1⅝", 1⅝"×1⅝".

193-194. (9233-34).—Terracotta dabbers. 4¾", 3½".

195. (9235).—Terracotta dabber. Round the body are inscribed a fish, snake, and hook which alternate with groups of dots. 3⅓".

196. (9236).—Stone tablet inscribed with *Narikasya*.

197. (9239).—Palm leaf manuscript—a work in Tamil on astrology called Ammaṇiyam, composed by one Saidapuram Chiṟṟambala Mudaliyar in the middle of the 19th century A.D.

Farmans, etc.

198. (96).—Farman of Alamgir II conferring one lakh and nine thousand 'dams' on Dost Muhammad Darvish. Dated 15th Rabi I, R. Y. 6.

199. (97).—Sanad of Asafjah Nizamul Mulk Bahadur. Dated the 2nd Rabi II, R. Y. 6.

200. (98).—Sanad of Raja Diler Sing. Dated the 15th Jumada I, R. Y. 6.

201. (99).—Sanad of Sayyid Afzal Khan on behalf of Farrukhsiyar. Dated the 29th Muharram, R. Y. 2.

202. (100).—Sanad of Munajjim Khan. Dated the 19th Shawal, R. Y. 3.

203. (101).—Sanad of Asafjah Nizamul Mulk conferring 12,150 'dams' on Muhammad Mah Khan, son of Muhammad Wali. Dated the 4th Rabi II, R. Y. 6 (of Alamgir II).

204. (102).—Edict of Jawan Bakht Bahadur to Diler Sing Bahadur conferring 15 thousand 'dams' on Muhammad Jamal Khan. Dated the 1st Shaban, R. Y. 3.

205. (103).—Sanad of Zikria Khan to Muhammad Shakir, son of Shaikh Muhammad Wali conferring on the latter the title of Khan. Dated the 27th Zulhijja, 1171, R. Y. 5.

APPENDIX I.

List of coins acquired for the Indian Museum, Archæological Section, during the year 1934-35.

I.—NON-MUHAMMADAN.

Ruler's name.	Dynasty.	Gold.	Silver.	Billon.	Copper.	Total.	Mode of acquisition.
	Punch-marked .	..	1	..	..	1	Presented by Sj. Sriram Maitra.
	Ditto .	..	10	..	..	10	Received in exchange.
Ancient Cast coins of N. India.	..	..	..	..	8	8	Purchased.
Ditto . .	..	..	..	..	2	2	Presented by Mr. K. N. Dikshit.
Ditto . .	..	..	..	..	1	1	Received in exchange.
Local coin of N. India	..	..	..	..	1	1	Presented by N. W. F. P. Government.
Ditto . .	..	..	..	..	1	1	Presented by Mr. Subhendu Singha Roy.
Strato I with Strato II.	..	..	2	..	..	2	Presented by N. W. F. P. Government.
Hermaios with Kadphises.	..	..	..	..	1	1	Presented by Mr. M. M. Gupta.
Maues	..	..	1	..	..	1	Received in exchange.
Azes	..	..	11	..	..	11	Presented by N. W. F. P. Government.
Azilises	..	..	2	..	..	2	Received in exchange.
	Kushan . .	..	..	..	13	13	On loan from D. G. A.
Skandagupta . .	Gupta . .	1	..	..	..	1	Presented by Punjab Government.
Asata-pala . .	Ohind . .	..	1	..	..	1	Ditto.
Mediæval coins of Northern India.	..	..	..	..	6	6	On loan from D. G. A.
Ramadata . .	Mathura Satrap .	..	..	..	1	1	Presented by Mr. Subhendu Singha Roy.
Govindachandra .	Rathor . .	2	..	..	..	2	Presented by U. P. Government.
Bhojadeva I . .	..	..	..	..	4	4	Purchased.
Jayaji Rao . .	Gwalior . .	..	..	..	1	1	Ditto.
Tukaji Rao . .	Indore . .	..	..	..	1	1	Ditto.
Pratapamalla . .	..	..	..	..	2	2	Presented by Mahakosal Society.
TOTAL .	..	3	28	0	42	73	

APPENDIX I—*contd.*

List of coins acquired for the Indian Museum, Archæological Section, during the year 1934-35— contd.

II.—Muhammadan.

Ruler's name.	Dynasty.	Gold.	Silver.	Billon.	Copper.	Total.	Mode of acquisition.
Muhammad bin Sam	Sultan of Delhi .	1	..	..	..	1	Presented by Punjab Government.
Shamsuddin Altamsh	Ditto .	..	..	15	..	15	Ditto.
Jalaluddin Firoz .	Ditto .	..	..	1	..	1	Ditto.
Sikandar Shah I .	Ditto .	..	..	..	1	1	Presented by Director of Industries, C. P.
Ahmad Shah II .	Bahmani . .	..	..	..	6	6	Ditto.
Husain Shah . .	Jaunpur . .	..	..	..	1	1	Purchased.
Mahmud Shah Khalji	Malwa . .	..	..	..	1	1	Presented by Mr. Subhendu Singha Roy.
Harunur Rashid .	Arab Caliph .	..	1	..	..	1	Discovered at Paharpur.
Arab Governor of Sind	?	..	1	..	..	1	Presented by Jodhpur Durbar.
Akbar	Mughal . .	23	..	..	..	23	Presented by Punjab Government.
Ditto . . .	Do. . .	..	..	..	1	1	Presented by U. P. Government.
Jahangir . . .	Do. . .	1	..	..	..	1	Purchased.
Shah Jahan . .	Do. . .	4	..	..	..	4	Presented by Punjab Government.
Ditto . .	Do. . .	..	3	..	..	3	Presented by U. P. Government.
Aurangzeb . .	Do. . .	..	2	..	..	2	Ditto.
Ditto . .	Do. . .	..	3	..	..	3	Presented by B. B. R. A. Society.
Ditto . .	Do. . .	..	1	..	..	1	Presented by Mr. Subhendu Singha Roy.
Farrukhsiyar . .	Do. . .	..	4	..	..	4	Presented by U. P. Government.
Muhammad Shah .	Do. . .	..	1	..	..	1	Presented by Director of Industries, C. P.
Ditto . .	Do. . .	..	2	..	..	2	Presented by Punjab Government.
Ditto . .	Do. . .	..	6	..	..	6	Presented by U. P. Government.
Ahmad Shah . .	Do. . .	..	1	..	..	1	Presented by Punjab Government.
Alamgir II . .	Do. . .	..	1	..	..	1	Presented by Mr. Subhendu Singha Roy.
Shah Alam II . .	Do. . .	..	22	..	..	22	Presented by U. P Government.
Shah Ali Gauhar .	Do. . .	..	3	..	..		Presented by B. B. R. A. Society.
Ahmad Shah . .	Durrani . .	..	3	..	..	3	Presented by U. P. Government.
Sadiq Muhammad .	Bahawalpur State	..	..	..	1	1	Presented by Director of Industries, C. P.
Native State . .	..	..	..	..	1	1	Ditto.
TOTAL .	..	29	54	16	12	111	
GRAND TOTAL	..	32	82	16	54	184	

APPENDIX I—*concld.*

List of exhibits other than coins acquired for the Delhi Fort Museum during the year 1934-35.

ON LOAN FROM THE DIRECTOR GENERAL OF ARCHÆOLOGY IN INDIA.

1. Picture of Prince Murad, son of Akbar, on horseback.
2. Picture of Prince Danyal, son of Akbar, with his wife.
3. Picture of Shahjahan with three of his sons.
4. Picture of Shahjahan, on horseback.
5. Album containing 10 sketches, entitled '*Sketches taken at Delhi*' by Major Turnbull.
6. Manuscript copy of the *Tuzuk-i-Timuri* containing 19 coloured illustrations.
7. Royal Mandate dated 1174 A.H. issued in favour of Raja Diler Singh Raushan Rai, by Jawan Bakht Bahadur.
8. *Sanad* dated the 29th year of the reign of Shah Alam II issued in favour of Zabardast Ali, by Akbar Shah II.
9. *Sanad* dated the 6th year of the reign of Shah Alam II issued in favour of Ghazi Sayyid Aman Ullah, by Raja Shitab Rai.

PURCHASED.

1. Specimen of calligraphy in *Naskh* characters written by Mohd. Arif Yaqut Raqam Khan.

List of coins acquired for the Delhi Fort Museum during the year 1934-35.

Ruler's Name.	Dynasty.	Gold.	Silver.	Copper.	Total.	Mode of acquisition.
Akbar	Mughal	..	8	..	8	On loan from the Director General of Archæology.
Shah Alam II	Do.	1	..	..	1	Ditto.
Jahangir	Do.	..	8	..	8	Presented by the Government of the United Provinces.
Shahjahan	Do.	..	4	..	4	Ditto.
Aurangzeb	Do.	..	6	..	6	Ditto.
Farrukhsiyar	Do.	..	5	..	5	Ditto.
Muhammad Shah	Do.	..	15	..	15	Ditto.
Shahjahan	Do.	..	3	..	3	Presented by the Director of Industries, C. P., Nagpur.
Aurangzeb	Do.	..	2	..	2	Ditto.
Muhammad Shah	Do.	..	2	..	2	Ditto.
Ahmad Shah	Do.	..	1	..	1	Ditto.
Ahmad Shah II	Bahmani	..	..	4	4	Ditto.
Aurangzeb	Mughal	..	1	..	1	Presented by the Bombay Branch of the Royal Asiatic Society, Bombay.
Akbar	Do.	27	..	..	27	Presented by the Government of the Punjab.
Shahjahan	Do.	3	..	..	3	Ditto.
Struck by the Arab invaders of India.	..	..	1	..	1	Presented by the Government of the Jodhpur State.
TOTAL	..	31	56	4	91	

APPENDIX II.

Additions to Departmental Libraries.

Name of Office.	Books purchased.	Books presented.	Total.
Director General	158	52	210
Northern Circle	23	23	46
Frontier Circle	25	51	76
Western Circle	18	8	26
Central Circle	24	26	50
Eastern Circle	38	43	81
Southern Circle	39	17	56
Burma Circle	82	50	132
Government Epigraphist	296	142	438
Superintendent for Epigraphy	25	32	57
Archæological Chemist	12	4	16
Archæological Section, Indian Museum	19	30	49
Central Asian Antiquities Museum	5	16	21
Taxila Museum	6	8	14

INDEX.

Small capitals : Names of persons.

Italics : Titles of books.

MGIPC—M—III-9.13—12-7-37—350.

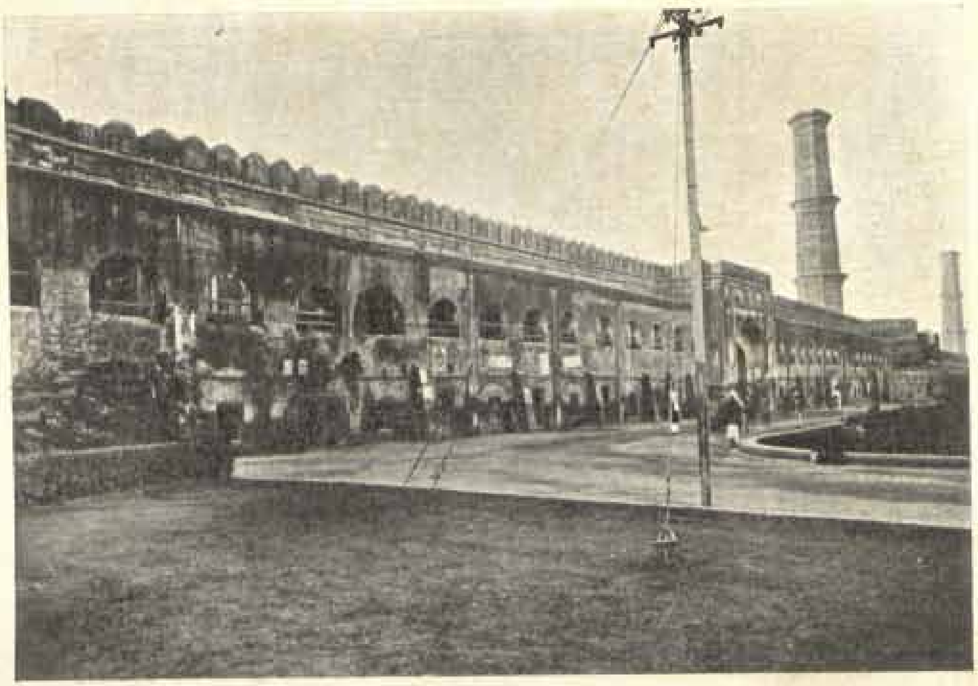
PLATE I.



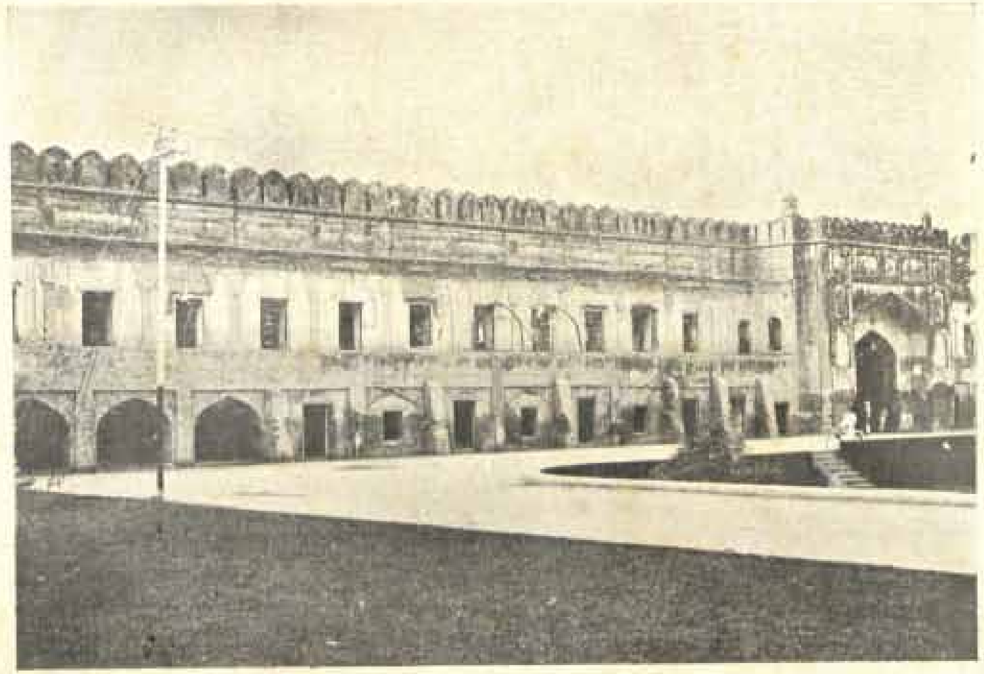
(a). Allahabad. Khusro Bagh. South gate; general view showing damage caused by the earthquake.



(b). Allahabad. Khusro Bagh. South gate; general view after conservation.



(c). Lahore. Roshanai gate; eastern wall before conservation.



(d). Lahore. Roshanai gate; eastern wall after conservation.

CONSERVATION. GURGAON AND MOHENJO-DARO.



(*a*). Gurgaon. Mughal bridge over Buddhianwala *Nala*. View from south east during conservation.



(*b*). Gurgaon. Mughal bridge over Buddhianwala *Nala*. View from west during conservation.

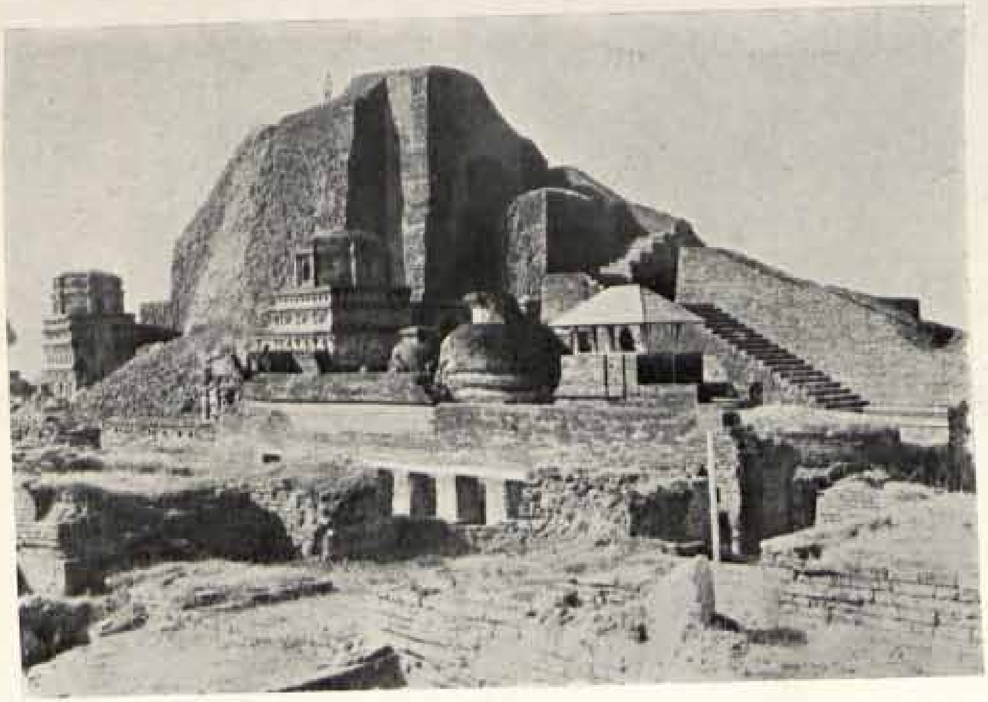


(*c*). Mohenjo-daro. Stupa site. Monastic cells to the north of the Stupa before conservation.

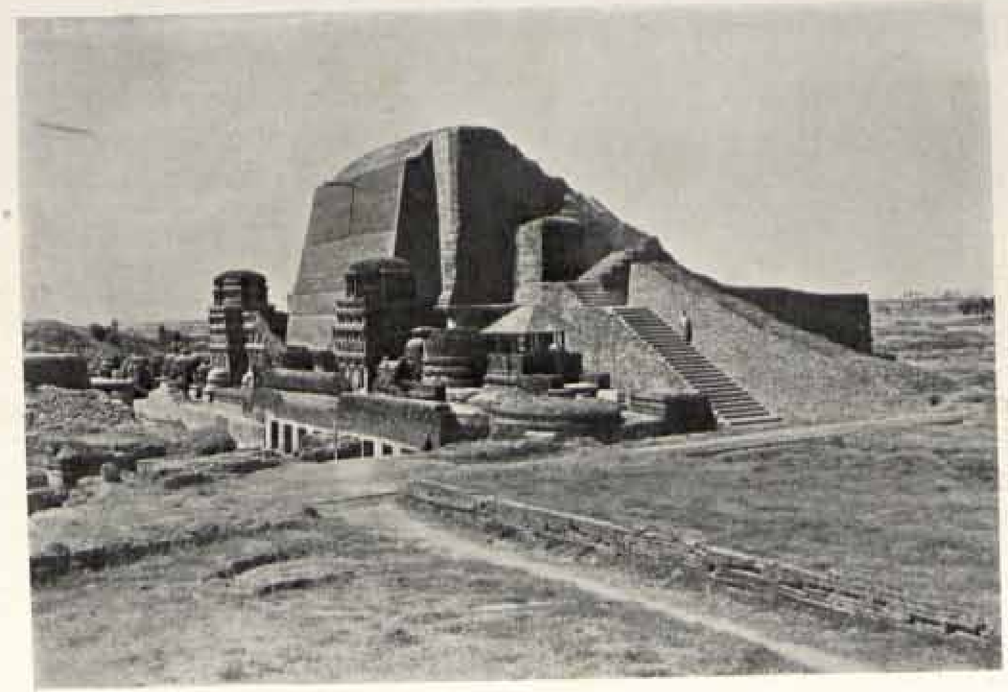


(*d*). Mohenjo-daro. Stupa site. Monastic cells to the north of the Stupa after conservation.

PLATE III.



(a). Patna. Nalanda. Main Stupa showing damage caused by the earthquake. View from N.E.



(b). Patna. Nalanda. Main Stupa after repairs. View from N.E.

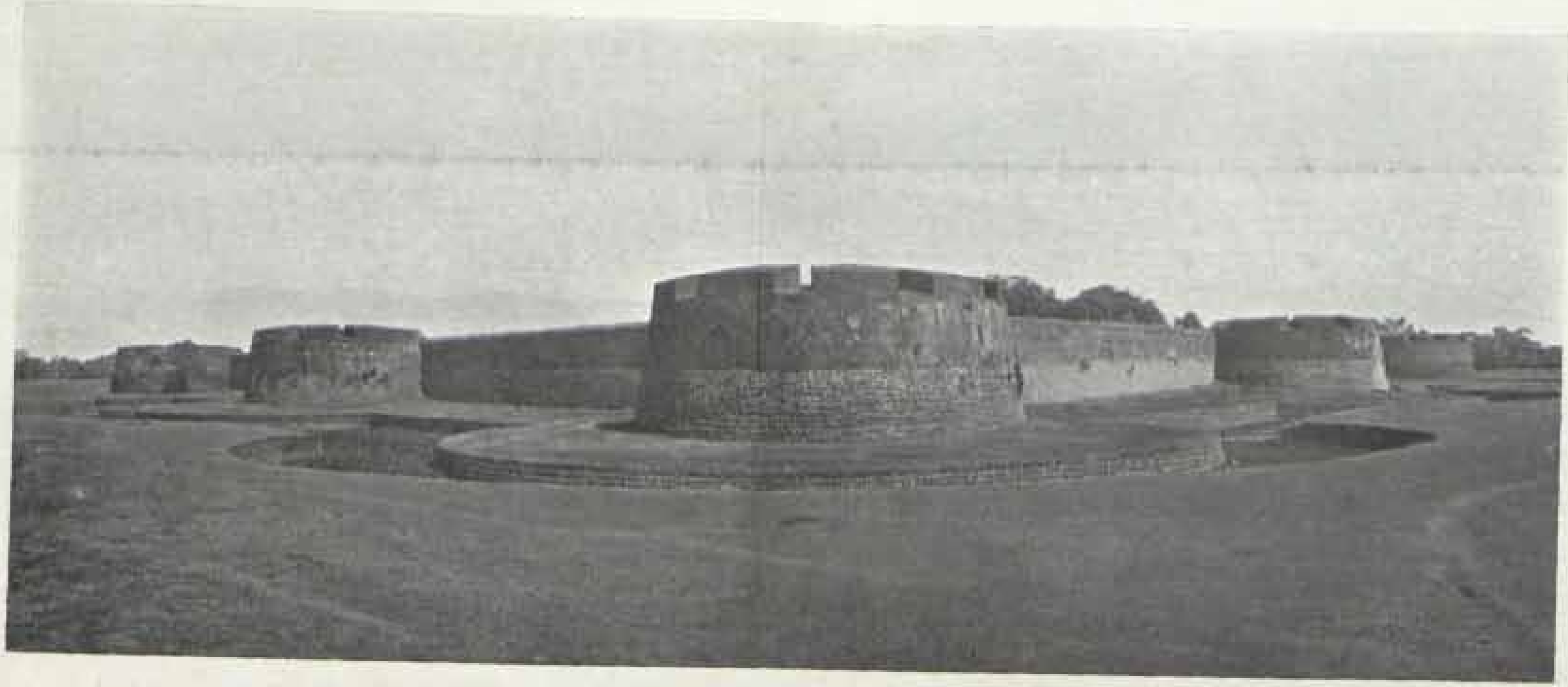


(c). Patna. Rajgir. Maniyar Math, before conservation.

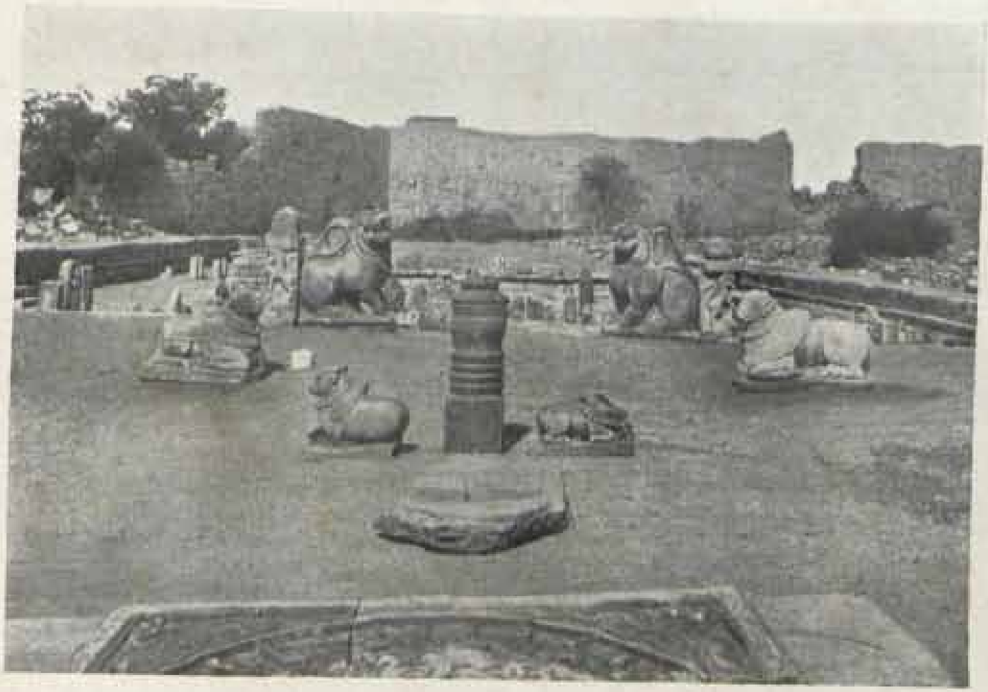


(d). Patna. Rajgir. Maniyar Math showing conservation in progress.

CONSERVATION. MALABAR AND BELLARY.



(a). Malabar. Palghat. Panoramic view of the Fort.

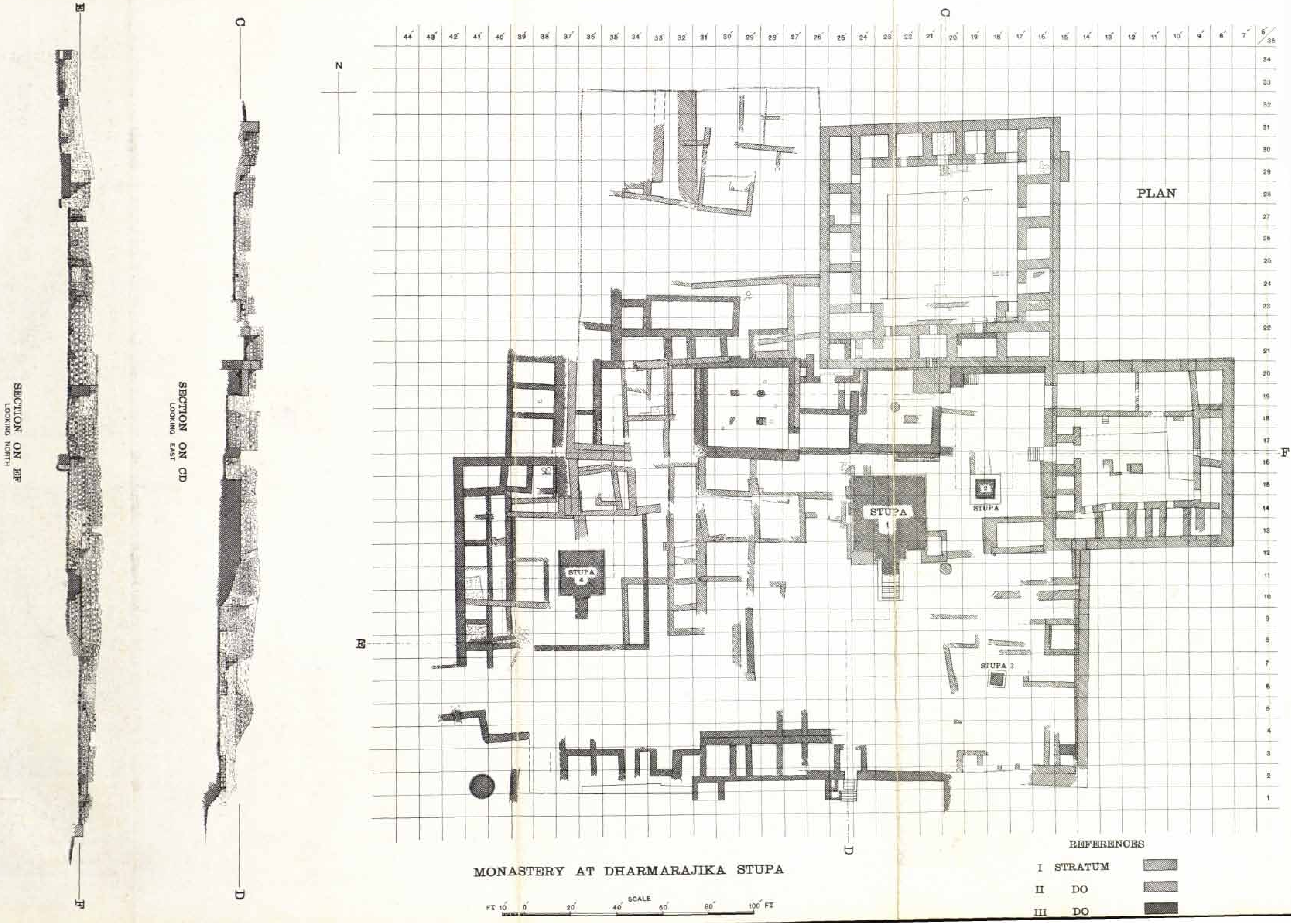


(b). Bellary. Hampi ruins. Open air Museum in Zenana enclosure showing sculptures recovered from ruins.



(c). Bellary. Hampi ruins. Rows of sculptures and architectural stones arranged in Zenana enclosure.

PLATE V.



MONASTERY AT DHARMARAJIKA STUPA



(a). Taxila. Dharmarajika Stupa adjuncts. View of Stupa No. 1 and adjoining buildings from S.E.



(b). Taxila. Dharmarajika Stupa Adjuncts. Northern monastery from N.E.



(c). Taxila. Dharmarajika Stupa Adjuncts. Drains of two periods connected with a cell of Northern monastery.



(d). Taxila. Dharmarajika Stupa adjuncts. View of interior of Assembly hall to N.W. of Stupa No. 1, showing pillar bases.



(a). Taxila. Dharmarajika Stupa adjuncts. View of Stupa 2 and approach to eastern monastery.



(b). Taxila. Dharmarajika Stupa adjuncts. View of Stupas 1 and 2 from N.E.



(c). Taxila. Dharmarajika adjuncts. View of Stupa 4 from S.E.



(d). Taxila. Dharmarajika Stupa adjuncts. General view of buildings to the N.W. of Stupa 1, from N.E.

EXCAVATIONS, TAXILA.



(a). Taxila. Dharmarajika Stupa adjuncts. Relic casket from Stupa 4 and its contents.



(b). Taxila. Coins found with relics.



(c). Taxila. Stucco head.



(d). Taxila. Terracotta casket with lid.



(e). Taxila. Mutilated stone sculpture showing elephant with riders.



(f). Taxila. Stone figure of Kubera (?) with spear and cock.



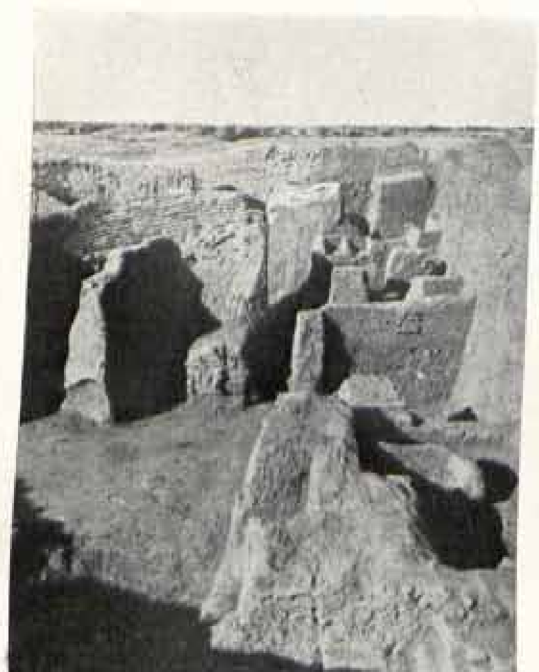
(g). Taxila. Copper finial.



(*a*). Harappa. General view of excavations on the southern edge of Mound AB, from west.



(*b*). Harappa. General view of excavations in Mound D. North-Western Section. View from S.W.

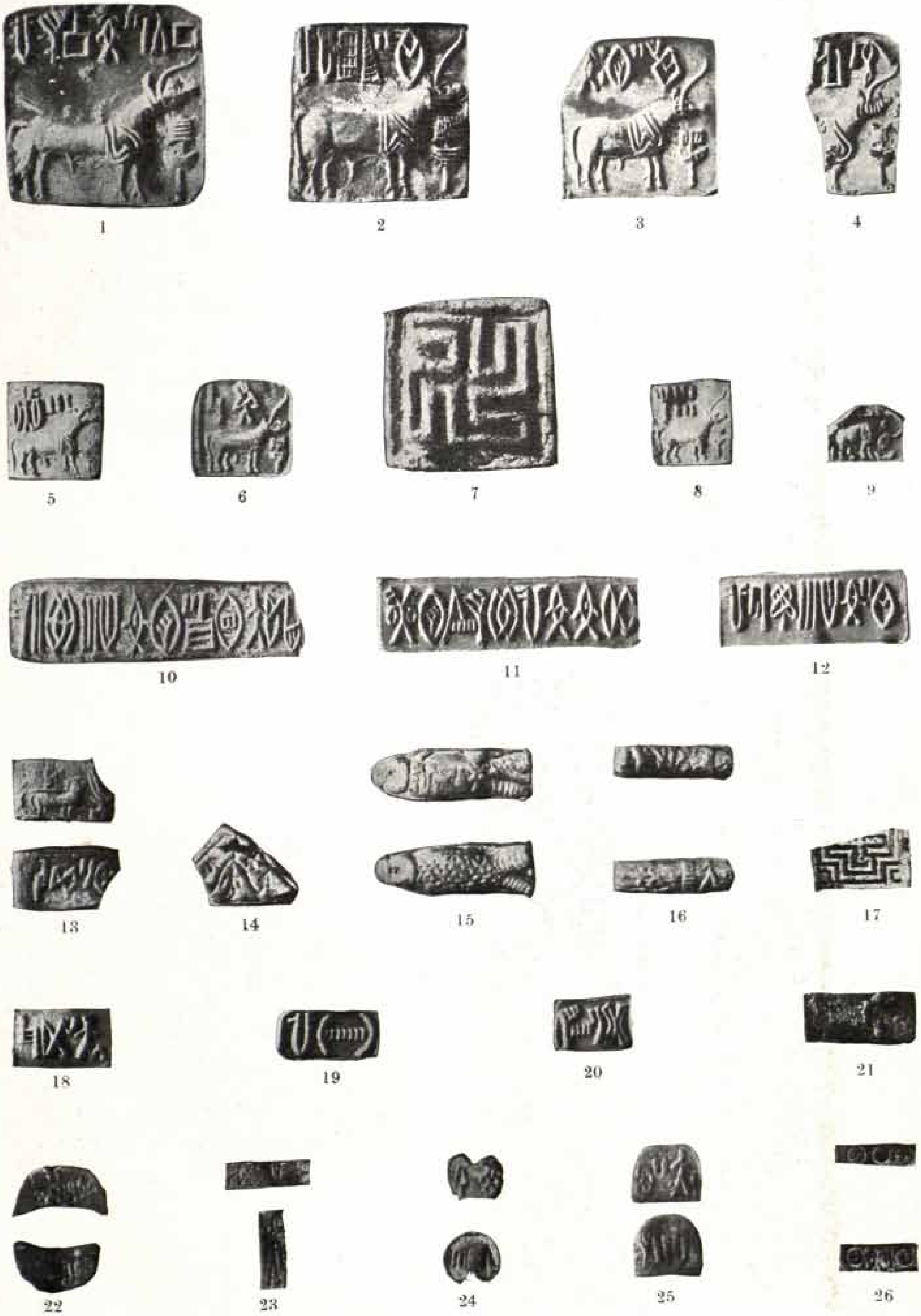


(*c*). Harappa. Mound D. Detailed view of excavations in the eastern extension, from N.W.

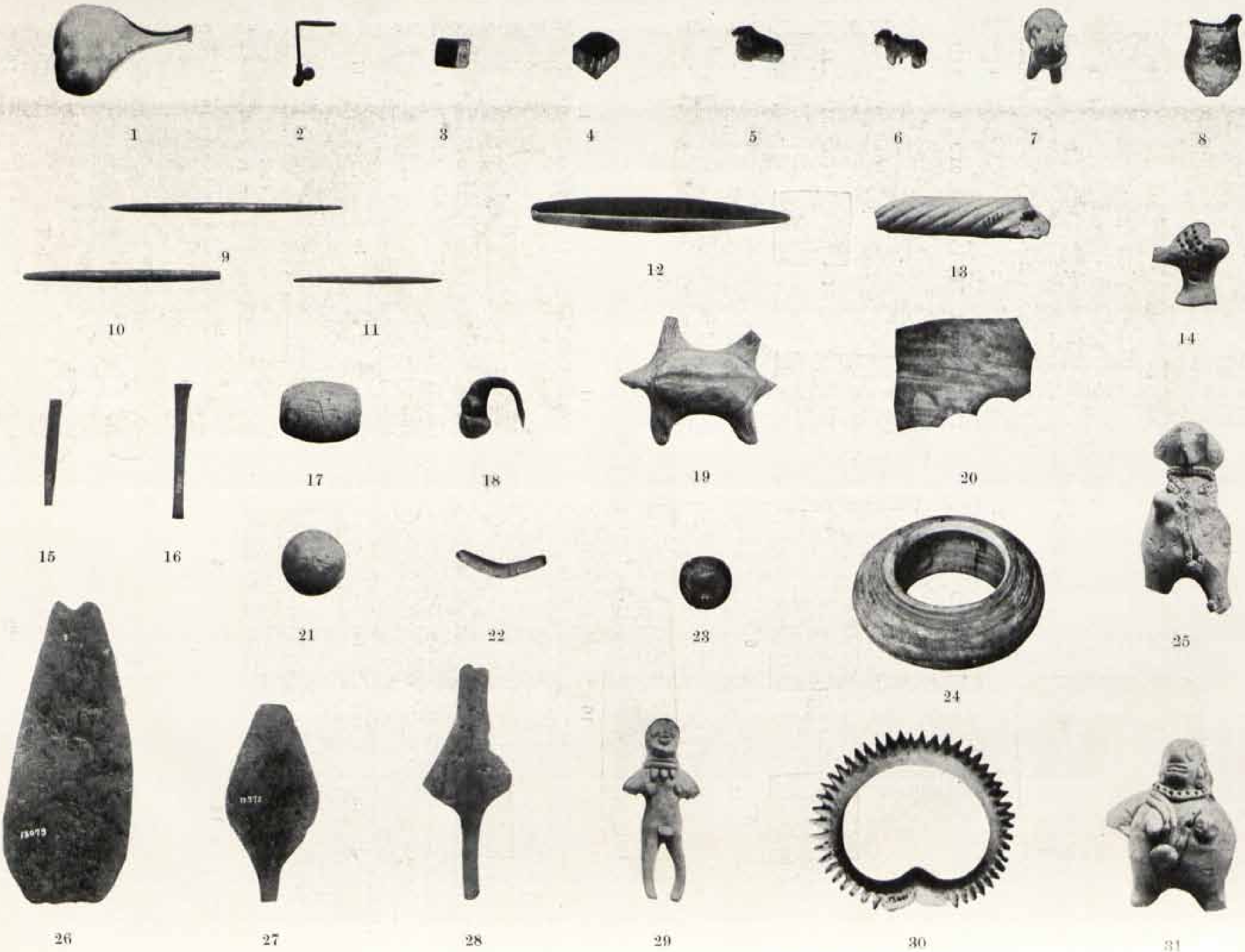


(*d*). Harappa. Mound AB. Detailed view of southern trench showing napi-form jar (No. 12906).

EXCAVATIONS, HARAPPA.



Harappa. Seals and sealings.



Harappa. Miscellaneous objects.



(*a*). Delhi. Qutb. South wall of Jahanpannah after excavation. Distant view from S.E.



(*b*). Rangpur. (Limbdi State). Trench B, showing remains of walls of different periods. View from S.E.



(*c*). Rangpur. (Limbdi State). Trench B, showing remains of walls of different periods. View from N.E.

EXCAVATIONS. RANGPUR.



1. C26 2. C5 3. C32 4. C27 5. B17 6. B5



7. C13 8. C10 9. B18 10. B11 11. C23 12. C15 13. C11 14. C12



15. C11 16. B13 17. C20 18. C22 19. C20 20. C20 21. C22

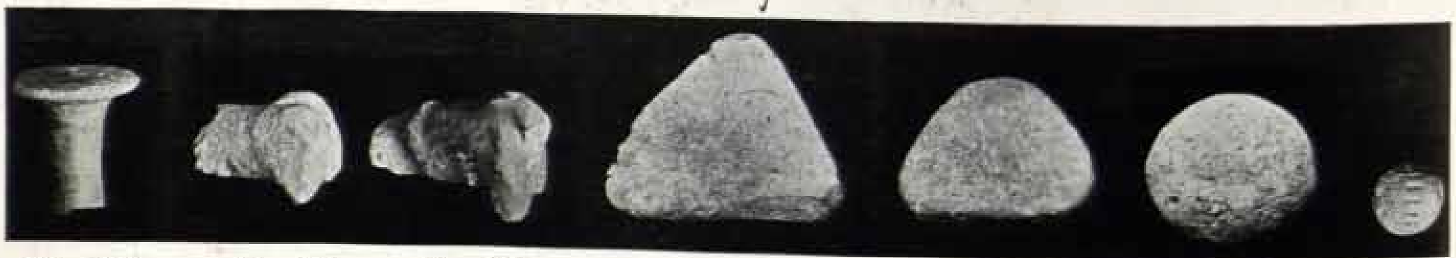




27a. C40



22. C41 23. C6 24. C14 25. C48 26. C42 27. C39



28. C31 29. C9 30. C44 31. B16 32. A2 33. C45 34. B24

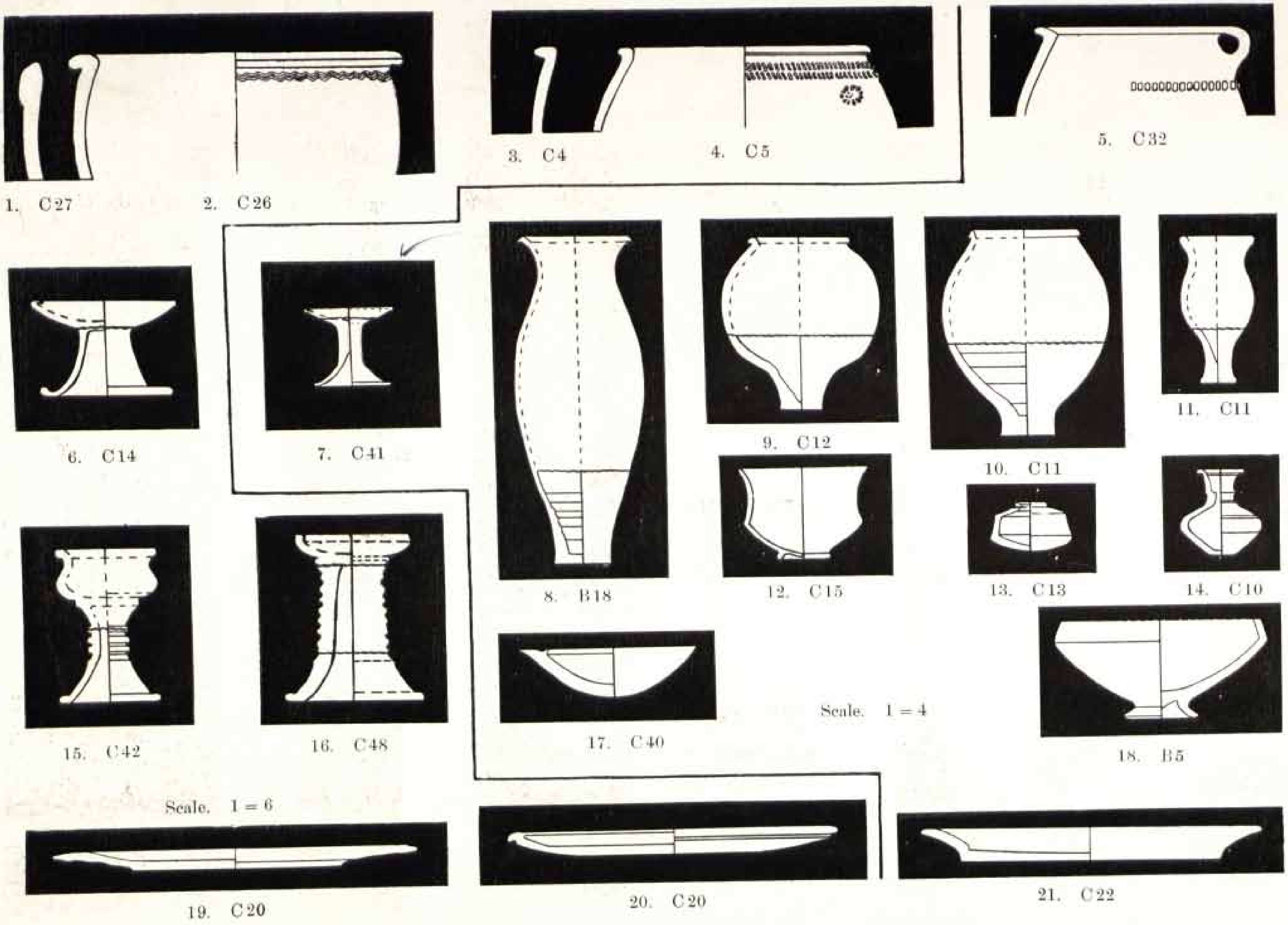


35. B25 36. C52 37. A10 38. C49 39. B28 40. B27 41. B79



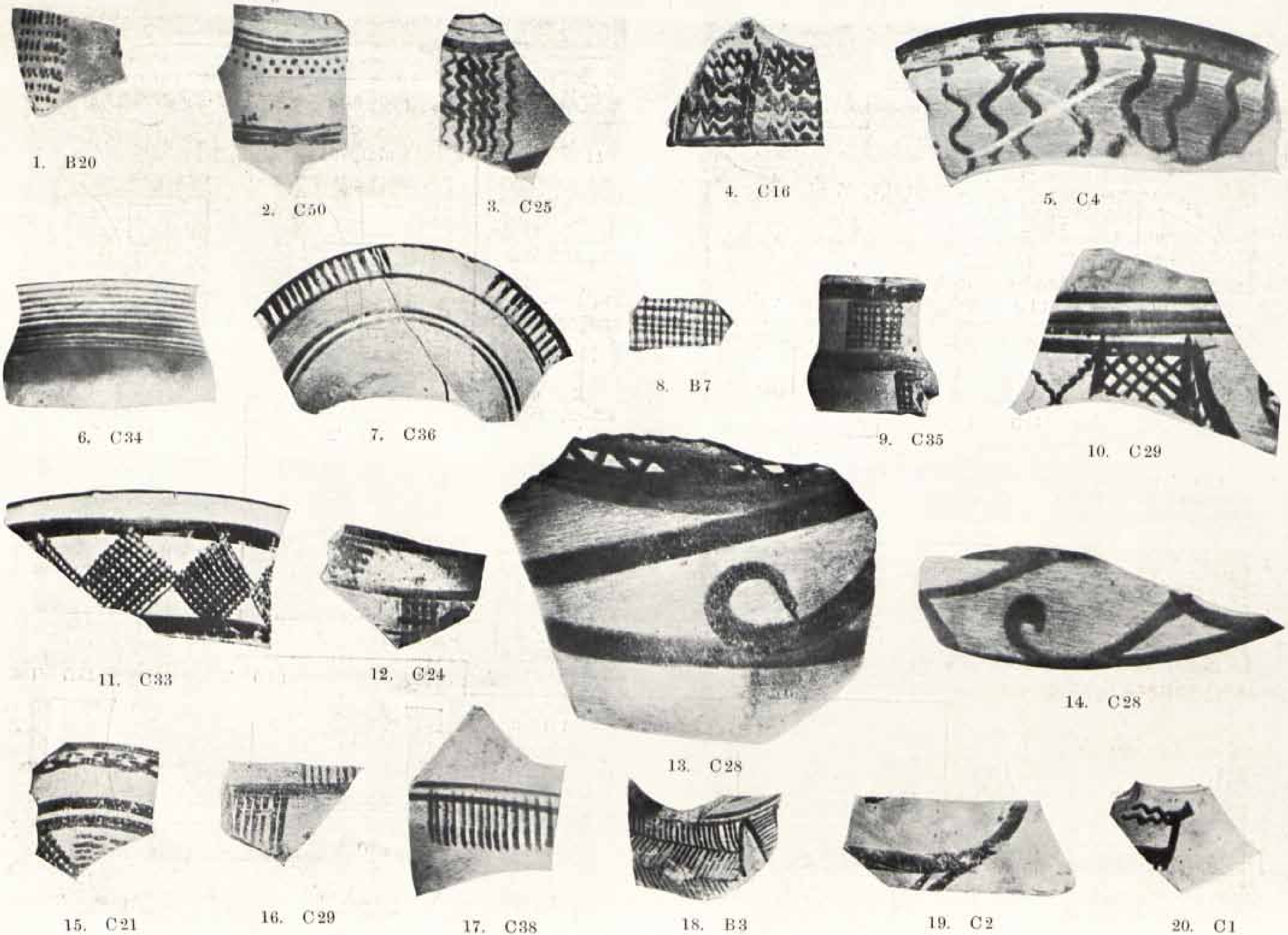
42. 43. 44. 45. 46. 47.

Rangpur. Miscellaneous objects.



Rangpur. Pottery forms, showing restoration in dotted lines.

EXCAVATIONS. RANGPUR.



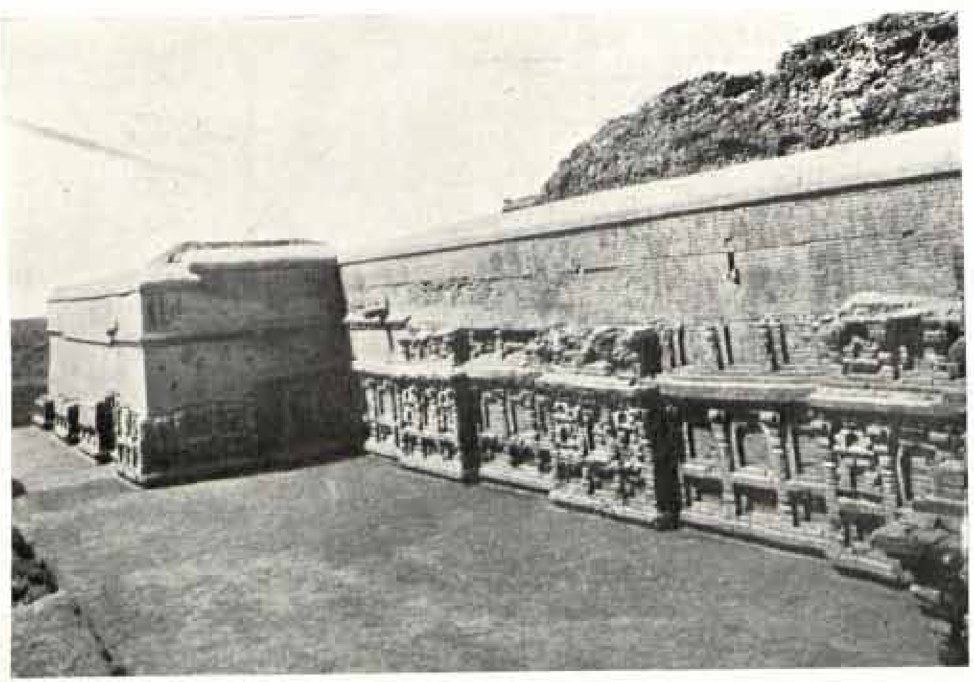
Rangpur. Painted potsherds.



(a). Nalanda Monastery No. XI, before excavations; from N.E.



(b). Nalanda Monastery No. XI. View of cells and courtyard after excavation; from N.E.



(c). Nalanda. Chaitya Site No. XII, south façade, showing earlier and later construction, from S.E.



(d). Nalanda. Chaitya Site No. XII, South side showing the plinth of earlier structure, from east.

EXCAVATIONS. NALANDA.



(*a*). Nalanda. 4 stone images from Sites X and XI.



(*b*). Nalanda. Terracotta plaques and medallion.



(*c*). Nalanda. Pottery cup and vessels.



(*d*). Nalanda. Terracotta sealings of Nalanda monastery.



(*e*). Nalanda. Bronze image of archer.



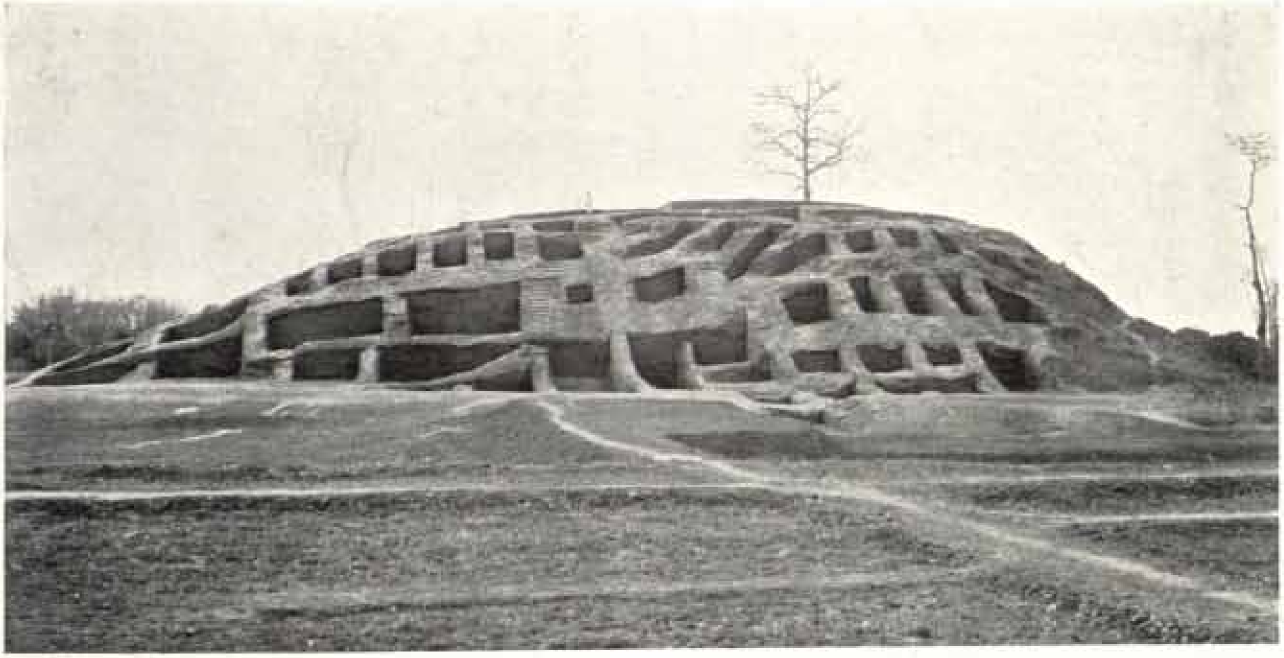
(*f*). Nalanda. Bronze image representing scene of Buddha's birth.



(*g*). Nalanda. Bronze image of Buddha.

PLATE XVIII.

EXCAVATIONS. MEDH.



(A) The mound at Medh, near Mahasthan, Bogra District, after Excavation.





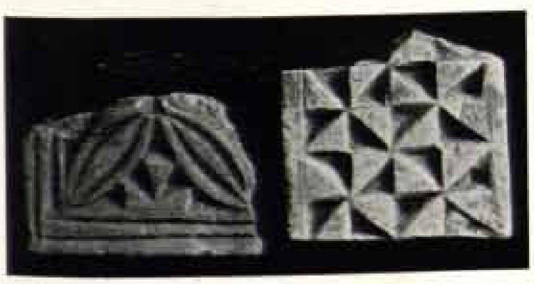
1 2 3



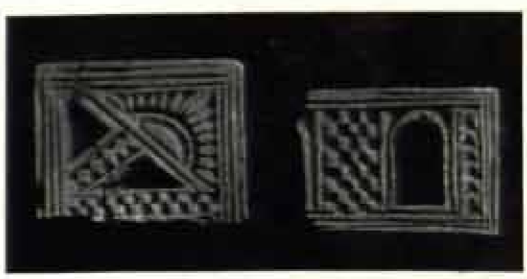




4 5 6 7 8







9 10 11 12 13

(1—13) Terracottas excavated at Medh.

EXCAVATIONS. BURDWAN AND BAIGRAM.



(a). Burdwan District. Sat-deul temple.



(b). Baigram. Dinajpur District. Terrace adjoining temple after excavation.

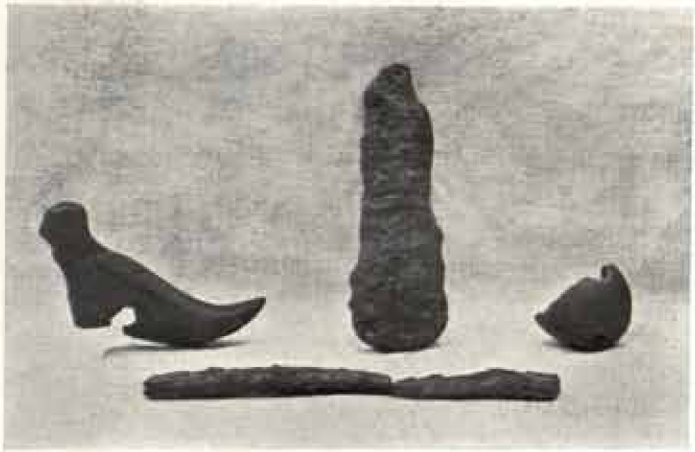


(c). Baigram. Dinajpur District. Shrine after excavation.



(d). Baigram. Steps leading to temple after excavation.

EXCAVATIONS. KILPAUK (MADRAS).



(*a*)



(*b*)



(*c*)



(*d*)



(*e*)



(*f*)



(*g*)

(*a*)—(*g*). Kilpauk, Madras. Iron implements, bricks, pottery and sarcophagus from Mr. Prudhomme's Bungalow, now preserved in the Madras Museum.



(*a*). Zokthok. General view of Tizaung pagoda.



(*b*). Zokthok. Tizaung pagoda. Details of basement.



(*c*). Zokthok. Stone altar for offerings.

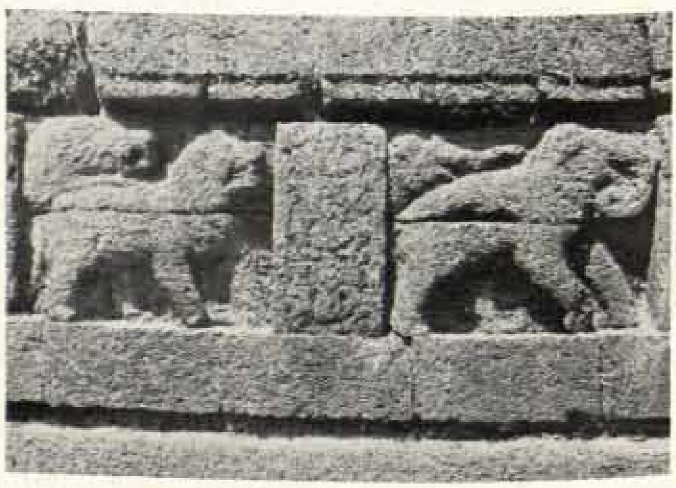


(*d*). Zokthok. Votive stupa.



(*e*). Zokthok. Votive umbrella.





(*f*) & (*g*). Sculptured panels in wall known as Sindat-Myindat.

EXPLORATIONS. BURMA.



(a). Hmawza. An inscribed stone slab.





(b) & (c). Hmawza. Terracotta plaques representing Bodhisattvas.



(d). Hmawza. An inscribed terracotta votive tablet.





(e) & (f). Hmawza. Fragment of terracotta seal. Obverse and reverse sides.



(g). Thaton. Metal Buddha.



(h). Thaton. Sandstone Buddha.



(i). Hmawza. Inscribed bronze image of Buddha.

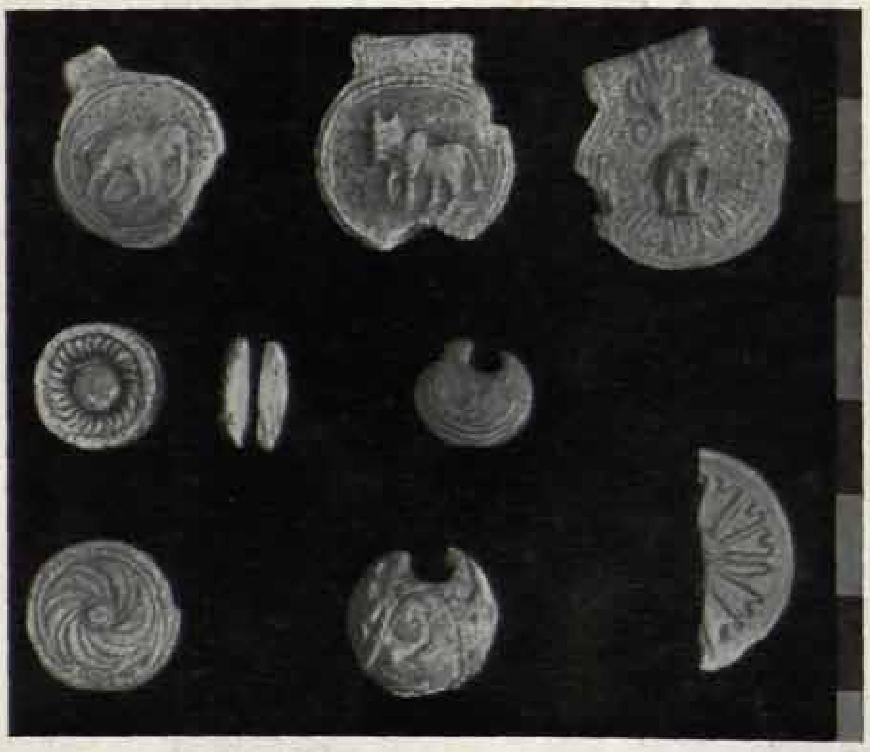
INDIAN MUSEUM.



(1). Relief from Mathura.



(2). Punch-marked and cast coins.



(3). Terracottas from Orissa.



(4). Bronze figure of Rishabhanatha from Orissa.



(5). Beads from Orissa.



(6). Stucco heads from the Khyber Pass.

INDIAN MUSEUM. STONE SCULPTURES FROM NORTH BENGAL.



(*a*). Dancing Ganesa.



(*b*). Goddess Manasa.



(*c*). Samvara.



(*d*). Kartikeya.



(*e*). Vishnu.



1



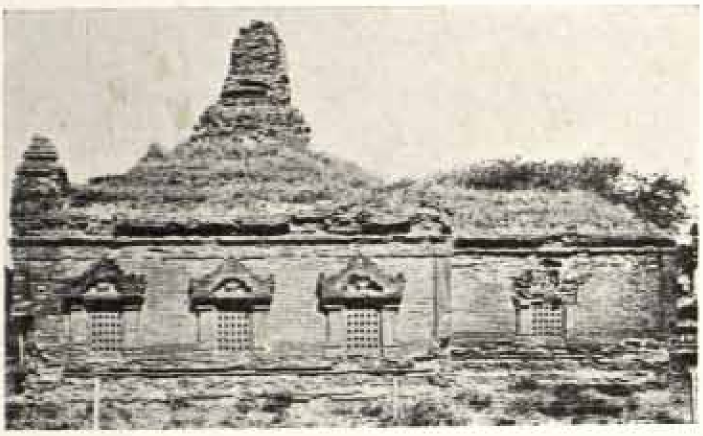






Lustred tiles and pottery from Persia.

BURMA.



(a). Myinpagan. The Nanpaya temple, before repairs.



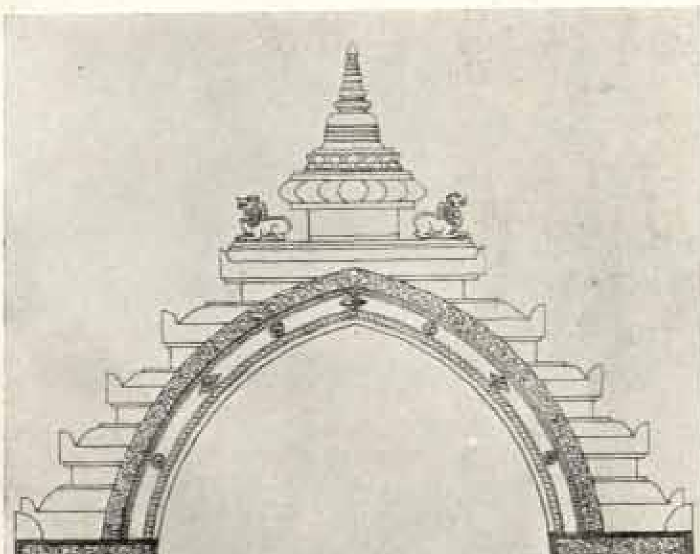
(b). Myinpagan. Nanpaya temple. Makara torana arch over a window.



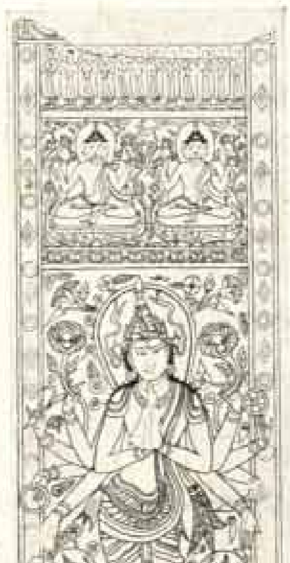
(c). Myinpagan. Nanpaya temple, after repairs.



(d). Myinpagan. Nanpaya temple. Image of Brahma on a pillar.



(e). Myinpagan, Nanpaya temple. Drawing of arch over the pillars.



(f). Myinpagan. Paintings on the north wall of the porch of the Kubyaukki temple (from a drawing).